# The OIL WEEKLY

A Journal for
Oil and Gas Producers and Field Men

HOUSTON
LOS ANGELES
PITTSBURGH
FT. WORTH
TULSA
CHICAGO

Vol. 31. No. 4 OCTOBER 20, 1923 10 Cents Per Copy

## Where There's a Weld There's a Weakness

Are you trusting your drill and casing strings to weld-weakened couplings?

Cut a welded coupling across, and look at the line where the metal is joined. The joining is never perfect. There are often dangerous cracks under the surface where they can't be seen.

Don't trust a weld. Get Harrisburg Forged Seamless Steel Couplings, that are forged seamless from special oil-field steel. There is no weld—no weakness in Harrisburg.

Balance a Harrisburg Coupling on your thumb and two finger tips. Hit it with a nail and hear it ring. Man, that IS steel!

Harrisburg Forged Seamless Steel Bull Plugs, Swedged Nipples and Pump Liners are made in the same way out of the same real stuff. The threads are cut true, and won't gall or strip.

*Stocked by leading dealers and supply houses*

**HARRISBURG PIPE & PIPE BENDING COMPANY**
**Harrisburg, Pa.**

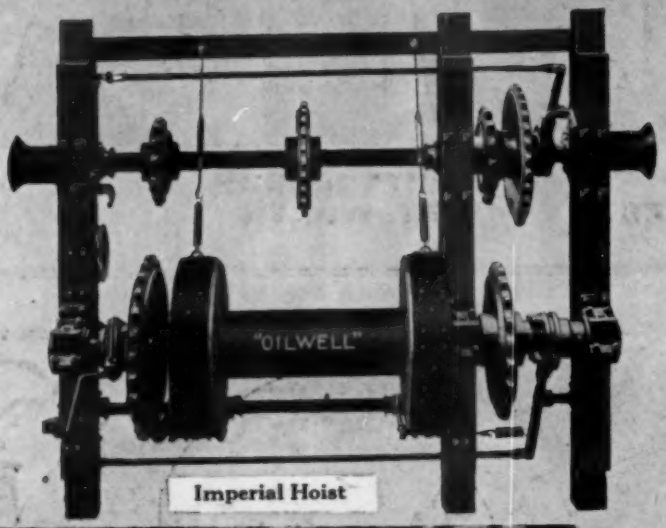
# HARRISBURG

*Forged Seamless Steel Couplings*

# "OILWELL"

## IMPERIAL ROTARY EQUIPMENT

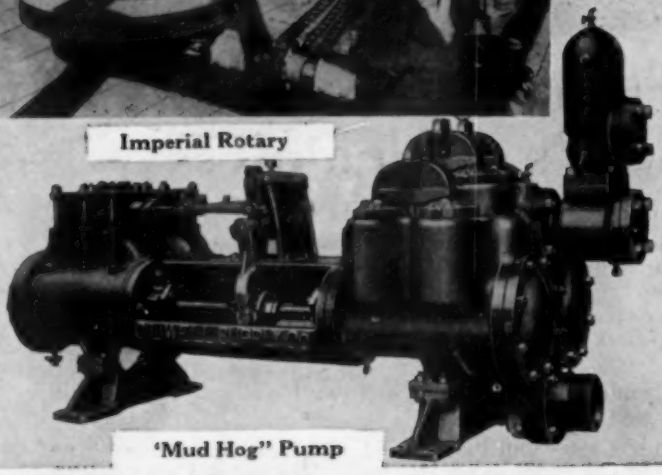
Oil Bath Swivel




Imperial Hoist

Double Gate Elevator

Imperial Rotary



'Mud Hog" Pump

Imperial Tool Joint

Eccentric Tong

The "Oilwell" Imperial Rotary Outfit being made up of component parts each of which is the leader in its line, is vastly superior to any other outfit.
Write for special bulletins descriptive of these articles or get copies at any of our 100 Branches.

**OIL WELL SUPPLY COMPANY**

PITTSBURGH, U. S. A.

New York San Francisco Los Angeles Tampico London

# OILWELL SUPPLY CO

*World's Largest Manufacturers of Oil Field Equipment*


THE OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 1716 Dallas Ave., Houston, Texas. Subscription price $1.00 a year; 10 cents a copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.

YOUNGSTOWN

NEW!

# YOUNGSTOWN COPPEROID PIPE

## RESISTS CORROSION!

COPPEROID Pipe is a new copper-bearing pipe especially developed by the Youngstown Sheet & Tube Company for use on properties where bad water, acids, etc., are encountered.

It will resist corrosion longer than either steel or iron pipe. Is especially recommended for line pipe.

It is offered in any size or weight that is obtainable in black steel pipe and at only a very slight advance over black steel pipe prices.

The nearest Continental office can give you full information.

**THE CONTINENTAL SUPPLY COMPANY**

*Everything for the Contractor, Producer and Refiner*

General Offices: St. Louis, Mo.

More than 70 Branches Covering All Prominent Oil Company Points

CONTINENTAL

Say you saw it in The Oil Weekly

# A break

on a sucker rod puts a big dent on production

Do prevent the breaks you loosen the brakes

## Axelson Sucker Rods

are made from the finest steel and heat treated to

100% breakproof

They have an unbroken record of giving the sort of service you want!

Axelson Machine Co.

Axelson Machine Co.

Los Angeles — St. Louis

Mid-Continent Office: Mid-Kennedy Bldg., Tulsa, Okla.

Mid-Continent Field Representatives:
Frick-Reid Supply Co.

# INDEX TO ADVERTISERS


A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

R

S

T

U

V

W

Guide for Purchasers on Pages 73-74

# A break

## in a sucker rod puts a brake on production

By preventing breaks you loosen the brakes

## Axelson Sucker Rods

are mighty close to 100% breakproof

They have an unbroken record of giving the sort of *service* you want!

THERE IS NO ECONOMICAL SUBSTITUTE FOR QUALITY

## Axelson Machine Co.

Los Angeles St. Louis

Mid-Continent Office: 520 Kennedy Bldg.
Tulsa, Okla.

Mid-Continent Sales Representatives:
Frick-Reid Supply Co.

OIL WELL PUMPS. SUCKER RODS. FITTINGS. Tempered with Quality

# INDEX TO ADVERTISERS


### A

Ajax Iron Works ....24
American Well & Prospecting Co.... *
Atlas Supply Co. .... *
Axelson Machine Co. .... 4
Anderson & Anderson ....62

### B

Baker Casing Shoe Co. ....63
Barnickle, W. S., & Co. ....30
Beaumont Well Works Co. ....61
Bessemer Gas Engine Co. ....70
Boykin Machine & Supply Co. .... *
Bridgeport Machine Co. .... *
Brownell Company, The .... *
Brown Welding & Machine Co. .... *
Black, Sivalls & Bryson....53
Black, C. N. ....62
Buckeye Traction Ditcher Company.... *
Butler Manufacturing Co. .... *
B. & C. Machine & Foundry Co....63
Braden Company, The ....33

### C

Carter, O. M. .... 6
Caudill, S. J. ....62
Clark Machine Company .... *
Commercial National Bank ....50
Continental Supply Company .... 3
Connolly Agency, D. F. ....57
Corn Products Ref. Co. .... *
Coste, E., & Co. ....62
Grain Ready-Cut House Co. .... *
Cosden & Co. ....52
Colonial Steel Company .... *

### D

Darling Valve Manufacturing Co. ....68
Deep Well Engineering Co. .... *
De La Vergne Machine Co. .... *
Deussen, Alexander ....62
Donoghue, David ....62
Dunn Manufacturing Co. .... *
D. & B. Pump & Supply Co. ....31

### E

Exchange Banks of Tulsa ....15

### F

Federal Supply Company .... *
Fort Worth Laboratories ....63
Foxboro Company, Inc. ....36
Franklin Valveless Engine Co. .... *
Freeborn Engineering Co. ....63
Foamite-Childs Corporation .... *
Frick-Reid Supply Company ....42
Fostoria Pipe Company ....61

### G

Gantz Tank Company .... *
Gardner Governor Company .... *
Guiberson Corporation ....20
Gaso Pump & Burner Manufacturing Co....45
Gulf Coast Machine & Supply Co....58
Gulf Refining Company ....72

### H

Hardway & Cathey ....62
Harrisburg Pipe & Pipe Bending Co.... Front cover
Heitmann, F. W., & Co. ....61
Herald Brothers ....62
Heydrick Mapping Company ....63
Hirsch & Hannay ....62
Hope Engineering Company .... *
Hopkins, Edwin B. ....62
Hough Manufacturing Co., Chas. N....50
Holt Manufacturing Co., Inc., The....43
Houston Oil Field Material Co....61
Hudson, Thomas F. ....61
Hughes Tool Company....Back cover
Humble Oil & Refining Co.... *
Hill, Clark & Co.... *
Heller & Co., B. .... *
Heider Tractor Portable Winch.... *

### I

Imperial Brass Manufacturing Co.... *
Improved Rotary Bit Company.... *
International Supply Company .... *
International Derrick & Equipment Co.... Inside back cover

### J

Jones Oil Well Reamer.... *
Jones Company, S. M. ....26

### K

Kansas City Structural Steel Co. .... *
Keystone Pipe & Supply Co....30
Keystone Driller Company ....36
Kuehnle, Erick F. ....62

### L

Layne & Bowler ....47
Larco Wrench & Manufacturing Corp.... *
Lassen Hotel .... 5
Lockett, A. M., & Co.... *
Loop Steel Manufacturing Company.... *
Ludlow Valve Manufacturing Corp.... *
Lucey Manufacturing Corporation....51
Lufkin Foundry & Machine Co....10

### M

Maloney Tank Manufacturing Co....49
Matson, George C. ....62
McGregor Working Barrel Co.... *
Moore, Lee C., & Co....59
Myrick Machine Company .... *

### N

National Rubber Filler Company .... *
National Supply Companies ....22
National Transit Pump & Machine Company. 8
Norris Brothers ....60

### O

Oil City Iron Works ....71
Oil Well Supply Company....Inside front cover
Oil Well Service Company ....61

### P

Parkersburg Rig & Reel Co.... *
Peden Iron & Steel Co....49
Pelican Well Tool & Supply Co....43
Pennsylvania Tank Car Company....55
Petroleum Rectifying Company ....32
Petroleum Safety Appliance Co.... *
Petroleum Supply Company ....32
Pioneer Tank & Boiler Company.... *
Prentiss Vise Company .... *

### R

Reading Iron Company ....64
Rossendale Reddaway Belting & Hose.... *
Reading Steel Casting Company....52
Robichaux, L. F. .... *
Rotary Disc Bit Company .... *
Robinson Packer Company .... *
Republic Supply Company .... *
Rock Island Plow Company .... *
Roberts, Summerfield G. ....63

### S

Safety Pulling Machine Company.... *
Schofield, D. L. .... *
Shaffer Company, J. E. .... *
Sinclair Refining Company .... *
Southern Engine & Pump Company.... *
Southern Engineering Supply Co....63
Southwest General Electric Co....44
Spence, H. M. ....57
Star Drilling Machine Co. .... *
Standard Seamless Tube Company....60
Stitt Ignition Company .... *
Stone, Jesse R. ....62
Sullivan Company, The .... *

### S—Continued

Sullivan Machine Company ....48
Sunshine State Oil & Refining Co....55
Superior Tube Company ....66
Southern Minnesota Farm Power Co.... *
Securities Corporation .... *

### T

Tucker, Jas. I., Company ....62
The Texas Company ....10
Texas Employers' Insurance Association.... *
Texas Oil Pump Company....69
Texas Pipe & Supply Company....61
Texas Petroleum Bureau ....63
Trumble Gas Trap Company .... *
Tulsa Boiler & Sheet Iron Works.... *
Tulsa Rig, Reel & Manufacturing Co.... *
Titusville Iron Works, The.... *

### U

Union Petroleum Company .... *
United Iron Works, Inc....48

### V

Vandruff, R. E. ....62
Vinson, Elkins & Wood....62
Voorhees Rubber Manufacturing Co....61

### W

Willis Bros. Separator Mfgs.... *
Webster, C. W. .... *
Westcott Valve Co., Inc.... *
Western Machinery Company .... *
Westinghouse Electric Manufacturing Co.... *
Wiggins Suply Company .... *
Wilson & Willard Manufacturing Co....36
Williamsport Wire Rope Dis. Company.... *
Williams Tool Corporation .... *
W-K-M Company, Inc.... *
Wyatt Metal & Boiler Works.... *


*Printed in one or more issues in each month.

*In the Heart of Wichita*

In the heart of Wichita—within a step of the theatres and busy business districts—the Hotel Lassen, Kansas' finest hotel. Here stop the experienced travelers who have learned that in Wichita there is a guest house which equals the best in the United States in service, accommodations and cuisine, yet which has rates on a scale to suit the whole traveling public.

43 Rooms with Lavatory - $2.00
54 Rooms with Private Bath $2.50
104 Rooms with Private Bath $3.00
46 Rooms with Private Bath $3.50
14 Rooms with Private Bath $4.00
7 Rooms with Private Bath $4.50
14 Rooms, Bath, Twin Beds $6.00
28 Rooms, Bath, Twin Beds $7.00
23 Combination Sample Rooms
$4.50 per day, up

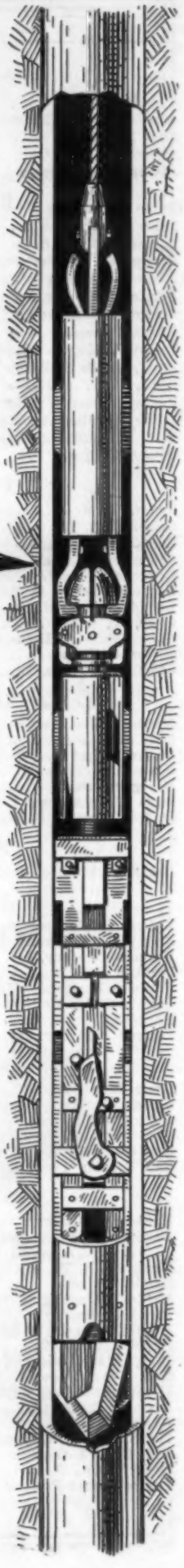
*Nearly Everybody Stops at the Lassen*

HOTEL LASSEN
WICHITA KANSAS


**Guide for Purchasers on Pages 73-74**

THE LONG WAY?

THE SHORTEST WAY



# TIME ECONOMY

History is a record of leadership. Every department of industry has had its leader. The production of oil from the ground has progressed under various leaders from the crude methods employed to sink the Drake well in Pennsylvania during the year 1859 to the present rotary systems, until the climax in economy, reliability and efficiency is attained by the Standard Collapsible Rotary Drill and Core Barrel.

The task of withdrawing from and returning the drill stem to bottom of a deep hole with a sharp bit or to obtain a core not only involves delay, but also considerable unnecessary expense for fuel and labor.

*Write for booklet containing full description.*

## The STANDARD COLLAPSIBLE ROTARY DRILL

MANUFACTURED BY O. M. CARTER

206-7-8 SCANLAN BLDG. HOUSTON, TEXAS

Say you saw it in The Oil Weekly

OCT 22 '23 ©CIB590459


# THE OIL WEEKLY

An International Oil Publication for Oil and Gas Producers

Copyright 1923 by the Gulf Publishing Company

MEMBER AUDIT BUREAU OF CIRCULATION

Established 1916

HOME OFFICE—Houston, 1716 Dallas Ave.
FORT WORTH—212 W. T. Waggoner Bldg.
TULSA—225 Atco Bldg.

*Published weekly by*
Gulf Publishing Company
HOUSTON, TEXAS
R. L. DUDLEY, EDITOR AND MANAGER

PITTSBURGH—1507 First Nat'l Bank Bldg.
CHICAGO—453 First National Bank Bldg.
LOS ANGELES—1201 Haas Bldg.

Vol. 31 | SATURDAY, OCTOBER 20, 1923 | No. 4


## In this issue.

### Off and Then Some

Production in the United States during the past seven days was 'way down as compared with the previous week, and this in spite of the fact that the Powell field in Texas has started running wild. Floods and storms accomplished what curtailment couldn't in the Mountain States district and the output in that section dropped from 160,000 barrels to 89,000 barrels during the week. California was off some, too. See the figures on page 28.

### What Will She Do?

Two recognized authorities talk on the ultimate recovery of crude oil in California. They have the facts and figures, too. Page 23.

### Prevention Is Best

Controlling gas, protecting flow pits and watching drainage systems are essentials in cutting fire hazards around producing properties. This series on fire takes up the greatest problem of the fire subject. Read about it, beginning on page 19.

### New Gas Line

Company has plans ready to start work on line to carry 30,000,000 cubic feet of gas daily from the Amarillo district in North Texas to the city. Page 25.

### Mexico Down

Exports from Mexican ports for September show loss of approximately two million barrels under August. Page 32.

### Lower Depths Disappointing

And still the wells in Canada go down. Some pictures show what the oil men are up against. Pages 36-37.

### Smackover More Active

Several deep tests are in prospect. Arkansas wildcats demanding attention. Page 38.

### A Real Time at Tulsa

The first annual Exposition and Congress was a success from every standpoint and everybody had a big time. Who was there, what they did and everything will be found starting on page 9.

### East Is Off

Fields east of the river have as many completions, but less oil. Page 39.

*Regular Features*


| | |
|---|---|
| Arkansas | 38 |
| Production Tables | 28 |
| Crude Oil Markets | 17 |
| Coastal Bollweevil | 69 |
| Corsicana | 34 |
| Eastern States | 39 |
| U. S. Completions Begin | 40 |
| Louisiana Fields | 38 |
| Mexia | 35 |
| Field Notes Begin | 27 |
| North Central Texas | 35 |
| New Equipment | 65 |
| Permits to Drill | 44 |
| Personals | 67 |
| "Squeaks" | 71 |
| West Coast | 29 |
| Wildcats | 46-52 |


### KEY TO ABBREVIATIONS

Following is the explanation of abbreviations and signs used in drilling reports, completions, etc.: *—dry, abandoned well; ‡—salt water; †—junked and abandoned; ¶million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling; N. S. E. W.—North, South, East, West; r—reaming; sd—shut down; sdtr—sidetracking, sp—spudded; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo workover; wosr—waiting on standard rig.

### Long Beach

In two years it had produced 57,700,000 barrels of oil from a total of 2,600,000 feet of hole, of which $29,000,000 worth were useless. Expect peak of production in December. Page 27.

### Another California Menace

Torrance Field in California is the scene of a new frenzy in drilling activity and can be expected to be making 50,000 barrels or more by the end of the year. Page 28.

### Big Texas Deal

The wildcat producer recently brought in by the Texon Oil Company in Reagan county, Texas, together with several thousand acres of land, has been purchased by the Benedum and Trees interests. Pictures and the story on page 14.

### We Are With You

A new fraternity organization to be known as the Knights of the Derrick has been started and memberships were received at the Tulsa show. They have some high ideals to live up to and the association is assured success. See page 16.

### Warns Against Revival

President Davis of the Mid-Continent Oil & Gas Association raises warning finger against revival of rush drilling on the assumption that the overproduction is abating. Page 31.

### That New Mexico Sale

The Navajos are now ready to pitch their hats in the ring with the Osages for qualifications to the rank of plutocrats.

### Powell Nears 300,000 Barrels

Production of the Powell, Texas, field is far in excess of pipe line facilities. Drilling rush has been source of heavy toll in human happiness. Page 34.


SUBSCRIPTION RATES

One Year...$1.00 The Copy...$..1? Foreign Subscription...$2.00

ADVERTISING RATES

on application. Accounts payable to GULF PUBLISHING CO.

# ON SUCTION LINES
# IN DRAIN PITS
# AS TRANSFER AND TANK PUMPS

Where the working pressure does not run above 125 lbs., it's hard to beat this—

**12x10x18"—SEPARATE CHEST TYPE**

# TRANSIT PUMP

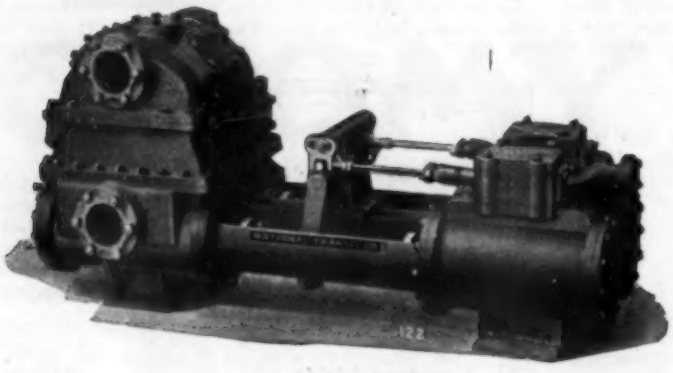


**Fig. 122—12x10x18**

Many of the largest refining companies in the world have standardized on this pump wherever possible, especially where the service calls for high suction rather than high pressure.
We have manufactured and sold over 3700 of this one type.

## NATIONAL TRANSIT
## Pump & Machine Company

**OIL CITY, PA.**

*District Offices:*

**Kansas City Houston Denver New York Philadelphia Cleveland Pittsburgh**

**Say you saw it in The Oil Weekly**

Here are some of the exhibitors who helped make the International Petroleum Exposition at Tulsa a success last week. The picture, taken early in the week, does not show all of the exhibitors. The OIL WEEKLY made an effort to secure a second picture late in the week, showing more exhibitors, but a downpour of rain spoiled the picture.

# First Petroleum Congress Branded Success

## Equipment manufacturers given credit for establishing event that will be repeated

**Tulsa, Okla., Oct. 19.**—At the close of the International Petroleum Exposition and Congress, Sunday night, more than 40,500 people had passed through the gates to view the exhibits. Registrations indicate that every section of the United States and several foreign countries were represented. It was the unanimous opinion that the show was the greatest of its kind that has ever been held. The management of the exposition feels that the affair was successful far beyond the anticipations of any one, and despite the bad weather during the last three days, attendance held up well.

An unusually well balanced program of entertainment was maintained throughout the exposition, but by far the most outstanding features were the exhibits. To the individual exhibitors must be given most of the credit for the success of the exposition. Every booth contained some special feature that was both entertaining and instructive. Nothing was spared to make the exhibits the best. This can be readily realized when it is known that some exhibitors shipped machinery weighing several tons half way across the continent. Machinery was installed just as it would be found in the factory or in the field. In many instances special concrete foundations were built, and every piece of machinery in operation could be seen just as it operates in industrial manufacturing plants or in the oil fields. Although there were numerous replicas of refineries, drilling and pumping outfits, and other well known equipment used in the oil industry, full sized equipment was also shown in operation.

To impress the public with the importance of petroleum and its products, there were several exhibits showing the various everyday articles that come from crude oil. Chief among these displays was that of the Cosden Company.

Of all exhibits presented none had more attention or excited more interest than the Drake Museum. From a historical standpoint that display was the most outstanding of all. In it were shown the Nelson tools used on the Nelson well in Ritchie County, West Virginia, in 1845. This well, a dry hole, was the first ever drilled in this country in an attempt to find oil. This exhibit centered around the tools used by Colonel Drake on the Titusville well, Titusville, Pennsylvania, in 1859. The history of the oil industry in America dates from the bringing in of this well. Casing from Norman 1, Neodesha, Kan., the first commercial well in the Mid-Continent field, was shown in the museum, along with a temper screw and crankshaft used on the Dennis O'Brien well in the Volcano field, West Virginia, 1870.

Plans have been completed for the exposition next year, and it is an assured fact that it will be held.

## CONTRIBUTORS TO EXPOSITION'S SUCCESS

**A-1 Packer Corporation,** Eldorado, Kan.—Represented by L. M. Robinson, president; B. E. Joslin, secretary; C. E. Walton, treasurer, and G. M. Seamster, salesman. Exhibit consisted of oil and gas well packers and swabs and plugs.

**American Car and Foundry Company,** St. Louis—Exhibiting tank car parts and photos of tank car construction work. Represented by T. C. Andrews, sales agent.

**American Schaeffer & Budenberg Corporation,** successors to the Schaeffer & Budenberg Manufacturing Company, Brooklyn, N. Y.—Represented by O. F. Kluenter, Southwestern representative; G. A. Binz, general sales manager, and A. E. Campbell. Exhibit consisted of recording thermometers, safety valves and recording and indicating gauges.

**American Well and Prospecting Company,** Corsicana, Texas—Represented by M. L. Westmoreland, sales manager, and Edgar Rittersbacher, treasurer. Exhibit consisted of gumbo buster rotary drilling outfit in operation.

**Armstrong Brothers Tool Company,** Chicago—Represented by Paul Armstrong and Paul L. Armstrong, Chicago, and Bob Allen and C. F. Adams, Southwestern representatives. Exhibit consisted of lathe and plane tools, clamps and dogs, ratchet drills and drop-forged wrenches, chain tongs and pipe tools.

**Armstrong Manufacturing Company,** Waterloo, Iowa—Exhibiting Armstrong all-steel traction oil well drilling outfit.

**R. E. Alexander, Tulsa**—Exhibiting Max jack frame for pumping jacks.

**Associated Supply Company,** Los Angeles, Calif.—Represented by E. H. Jones, district representative, and L. A. Schloss, engineer. Exhibit consisted of a gasoline and oil meter, showing sectional views and working models.

**B. & C. Machine and Foundry Company,** Tulsa, Okla.—Represented by E. W. Miller, sales manager, and W. P. Cunningham, president and general manager. Exhibit consisted of oil well specialties.

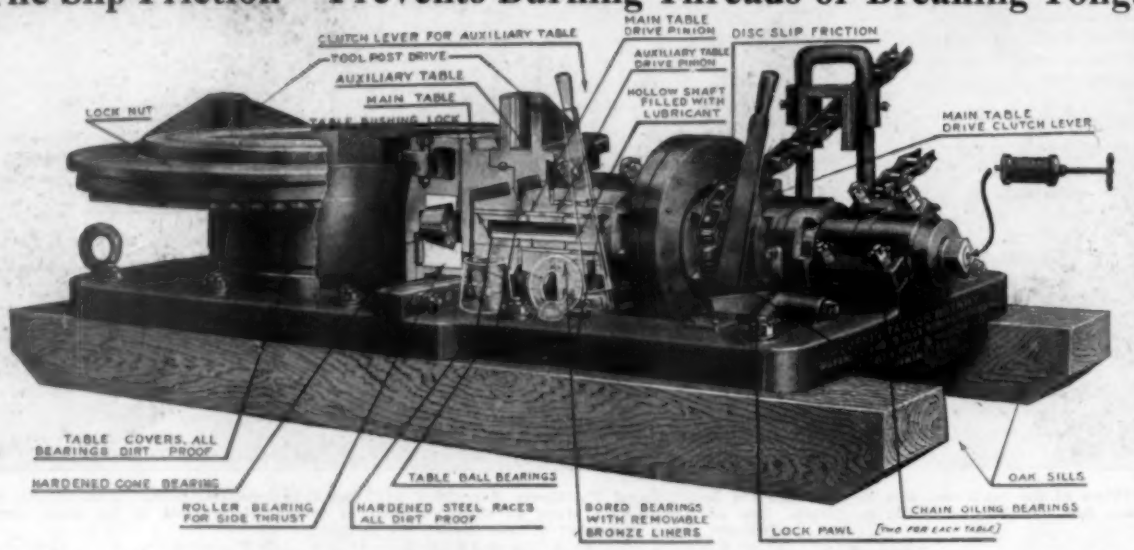
**Baird Supply Company,** Tulsa—Lynne D. Baird. Exhibit consisted of oil well supplies.

**Baldwin Chain & Mfg. Co.,** Worcester, Mass.—Represented by George J. Fix, Dallas. Exhibit consisted of roller chains, block chains, malleable chains, special chains and sprockets.

**Bear Tractor Company,** New York—Exhibiting Bear tractor in actual operation. Represented by L. S. Allen, Tulsa.

**Bessemer Gas Engine Company.**

## The Slip Friction—Prevents Burning Threads or Breaking Tongs




Drillers who are skeptical as to the success of a make and break rotary should withhold judgment until they see a Lufkin-Taylor operate. They will eventually hold the field when all other types are in the discard.

*ASK FOR BULLETINS*

## LUFKIN FOUNDRY & MACHINE CO., Lufkin, Texas

A. J. CARR, 202 Carter Bldg., Houston, Sales Agent

# TEXACO

**Petroleum Products**

## HIGH GRADE UNIFORM QUALITY

| | | | |
|---|---|---|---|
| Naphtha | Pale Oils | Machine Oils | Waxes |
| Gasoline | Red Oils | Cylinder Oils | Asphalts |
| Kerosene | Black Oil | Car Oils | Road Oils |
| Fuel Oils | Floor Oils | Greases | Asphalt Cement |
| Bunker Oils | Paraffin Oils | Cup Greases | Pipe Coating |
| Diesel Fuels | Spindle Oils | Gear Lubricants | Roofing |
| Signal Oils | Motor Oils | Axle Greases | Roofing Cement |
| Miners Oil | Engine Oils | Solid Lubricants | Petroleum Coke |
| Gas Oil | Dynamo Oils | Wire Rope Lubricants | |
| Distillates | | | |

## THE TEXAS COMPANY

**New York** — 17 Battery Place

**Chicago** — McCormick Bldg.

**Houston** — The Texas Co. Bldg.

Offices in Principal Cities

**Export Dept.** 17 Battery Place, New York

Grove City, Pa.—Represented by H. D. Murray, chief engineer; C. F. Fithian, sales manager; B. L. Potter, manager Southwestern branch, and F. B. Dunlap, Tulsa manager. Exhibit consisted of a 165-horsepower type 10, direct driven gas compressor in operation, running on its own power.

**Black, Sivalls and Bryson, Inc.,** Bartlesville, Okla.—Exhibiting Perfection vapor pressure tanks in action. Represented by A. H. Black, president; W. G. Bryson, vice president; E. F. Black, treasurer; J. A. Sivalls, secretary, and Glenn Skinner, general manager.

**Blackman - Hill - McKee Machinery Company,** St. Louis, Mo.—Represented by R. W. McPhee, Blanchard O. McKee, Ralph W. Nazel, Arthur Koller, Edward H. Stein and Arlington Nuetzel. Exhibit consisted of a three-foot radial drill, American oil country lathe, built for oil field work, and Nazel air hammers.

**Blackmer Rotary Pump Company,** Petoskey, Michigan — Represented by James Lyons, district manager, Kansas City; R. F. Leinberger, district manager, St. Louis, and F. E. Goodwin, Oklahoma representative. Exhibit consisted of rotary power and hand pumps.

**Blaisdell Machinery Company,** Bradford, Pa.—Represented by C. A. Spreter, Jr., salesman. Exhibit consisted of Blaisdell pump jack in operation.

**The Braden Company,** Tulsa—Exhibiting E-Z steel houses for oil field use. Represented by J. G. Michaelson, general manager.

**Bradford Motor Works,** Bradford, Pa. — Exhibiting Bradford seamless steel barrels, polish rods, Bramo pumps, etc. Represented by G. B. Morris, president, and M. F. Brennan, chief salesman.

**Bradford Rig and Reel Company,** Tulsa—Exhibiting Bradford standard rig irons, steel tanks and oil field supplies. Represented by F. J. Bradford, president; V. H. Van Horn, secretary-treasurer; F. M. Bohn, salesman.

**Bridgeport Machine Company,** Wichita, Kansas—Represented by J. A. Woods, A. A. Buschow, W. C. Meek. Exhibit consisted of a complete line of fishing and drilling tools for rent and sale.

**Brown Welding and Machine Company,** Breckenridge, Texas—Represented by C. H. Brown, manufacturer, and Cleve Johnson. Exhibit consisted of fishing tools.

**Bovaird Supply Company,** Tulsa—Represented by W. J. Bovaird, president, Independence, Kansas; D. G. Bovaird, second vice president; W. M. Bovaird, secretary-treasurer; R. M. McMahan, assistant secretary-treasurer and purchasing agent; F. Charles Shugart, sales manager, Tulsa, and George Krell, mechanical engineer. Exhibit consisted of Bovaird grip casing and tubing elevator and Bovaird spiders.

**Burns Tool Company,** Okmulgee, Okla.—Represented by F. G. Irvine, salesman, and H. G. Weaver, sales manager. Burns patented tubular temper screws were featured in the exhibit.

**The Philip Carey Company,** Cincinnati, Ohio—Represented by J. C. Rector, L. E. Whitaker and W. F. Catlett. Exhibit consisted of heat insulating material as applied to high temperature work.

**Chain Belt Company,** Milwaukee, Wis.—Represented by T. F. Scannell of St. Louis and R. G. Davis and W. H. Brandt of Milwaukee. Exhibit covered a working model of a chain drive equipped with Rex Chabelco chains.

**There were 40,816 paid admissions to the International Petroleum Congress and Exposition, according to an official announcement by the management Monday. It is believed that approximately $18,000 in insurance will be collected by the exposition officials for the last three days of the show, when rain fell almost continuously.**

**Clark Brothers Company,** Olean, N. Y., and **Gas Engineering and Construction Company,** Pittsburgh, Pa.—Represented by C. P. Clark, secretary and assistant treasurer, of Olean; William G. Cummings, Tulsa; O. B. Agner, Pittsburgh; William Bendean, Olean, and C. L. Cron, Casper, Wyo. Exhibit consisted of a Clark 80-horsepower direct driven gas compressor and a Clark junior drilling engine.

**Clifford Manufacturing Company,** Tulsa—Represented by Victor Clifford, W. M. Crinner, B. F. Ingraham, officials. Exhibit consisted of differential lubricated vapor valves.

**Columbus Steel Tank Company,** Kansas City—Exhibiting truck, bolted, gas tight tanks and welded tanks. Represented by E. E. Wild, manager; H. R. Leland, J. S. Foley and C. L. Robinson.

**D. F. Connolly Agency, Inc.,** Tulsa—Exhibiting Farrar and Trefts steam boiler in actual operation. Represented by Frank P. Monahan.

**Continental Supply Company,** St. Louis—Represented by J. H. Kountz, district manager, and George Stage, assistant manager, Tulsa. Exhibit consisted of general oil field supplies.

**Cosden Company, Tulsa** — Exhibit consisted of a complete showing of the various products manufactured from crude oil.

**Crowell Packer Company,** Tulsa—Exhibiting a full line of Crowell packers, oil saver, etc. Represented by H. E. Robinson, sales manager; W. H. Lynch and "Dutch" Tschappert, salesmen.

**Deck Clamp Tank Co.,** Okmulgee, Okla.—Represented by George F. Deck, assistant secretary-treasurer, and Charles B. Johnson, sales manager. Exhibit consisted of a deck clamp tank.

**DeLaval Separator Company,** New York—Exhibiting centrifugal oil treating machines for cut oil and tank bottoms. Represented by Paul S. Reed of Tulsa, Captain Hazen Follansbee of Tampico, Mexico, and A. F. Meston of Poughkeepsie, N. Y.

**Should the present low price of oil continue some form of state regulation of production within the governmental province is virtually inevitable, declared E. W. Marland of Ponca City, Oklahoma, president of the Marland Oil Company, in an address before the International Petroleum Exposition and Congress. Mr. Marland urged the drafting of conservative legislation for submission to all states within which oil is produced.**

**Eagle Pitcher Lead Company,** Joplin, Mo.—Represented by Bill Bailey, sales representative. Exhibit consisted of block lead, babbits, white lead, blue lead and lead wool for drilling plugs.

**Eastern Torpedo Company,** Toledo, Ohio—Represented by W. H. Jeffry, D. A. Koons, W. H. Swartz. Exhibit consisted of a shooting car that had been run 60,000 miles without a single mishap.

**R. F. Electrical Manufacturing Company,** Augusta, Kansas—Represented by John L. Baker, Oklahoma representative; George F. Williams, factory representative. Exhibit consisted of vertical turbine generators for oil field lighting purposes.

**B. V. Emery & Co.,** Tulsa—Represented by Bailey V. Emery, president; Ala B. Irving, secretary-treasurer. Exhibit covered D. & B. pumps and other oil well supplies.

**Empire Natural Gas Company,** Bartlesville, Okla.—Represented by H. D. Hancock, district engineer; C. H. Koinn, engineer; Mr. Lohman, engineer. Exhibit consisted of a pipe line system of distribution used by the Empire Company.

**"Floridin Company,"** Warren, Pa.—Represented by W. L. MacGown, vice president and general manager, Quincy, Florida, and R. C. Wallace, chemist, Quincy, Florida. Exhibit showed filtering and bleaching of lubricants and petroleum products, demonstrating the bleaching efficiency of Fullers earth.

**Foamite Childs Corporation,** Utica, N. Y.—Foamite fire extinguishers, engines, etc. Represented by A. E. Canaday of Kansas City, and H. P. Maginnis of Tulsa.

**The Foxboro Company, Tulsa**—Represented by W. C. Brown, general manager; A. J. Kerr, J. B. McMahon and H. L. Bailey. Exhibit consisted of vacuum and pressure meters, and a complete line of indicating and recording meters and gauges.

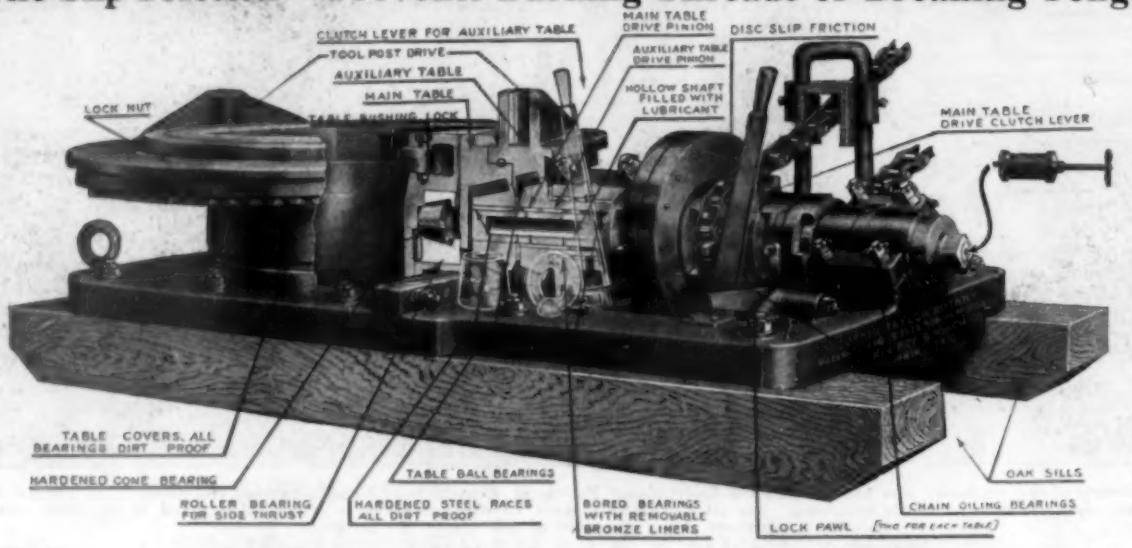
**Freeborn Engineering Corporation,** Tulsa—Represented by T. P. Moote, H. L. DeBar and H. Julius. Exhibit consisted of maps and charts for showing valuations and appraisals of oil properties.

**Frick-Reid Supply Company,** Tulsa—Represented by M. L. Moore, first vice president; J. E. Swindler, second vice president; J. L. Shakely, sales manager; E. B. Thornburg, purchasing agent; O. L. Staples, manager machinery department. Exclusive agents for the following products: Ratigan sure grips, Axelson pumps, camel hair belts, Frick-Reid generators for derrick and industrial lighting, Reid band wheels, Reid oil engines, Reid gas engines, National transit pumps, Beaumont Iron Works' "Dreadnaught Rotary" drilling outfit, Whitlock cordage equipment, Rensselaer valves, Arbon packers, flow and pumping jets.

**Gas-Tite Device Company,** Pawhuska, Okla.—Represented by T. H. Boyd, superintendent of the company and patentee of devices, and W. G. Kiser. Exhibit consisted of several tanks showing devices in place.

**Gaso Pump Company,** Tulsa—Repre-

## The Slip Friction—Prevents Burning Threads or Breaking Tongs




Drillers who are skeptical as to the success of a make and break rotary should withhold judgment until they see a Lufkin-Taylor operate. They will eventually hold the field when all other types are in the discard.

*ASK FOR BULLETINS*

## LUFKIN FOUNDRY & MACHINE CO., Lufkin, Texas

A. J. CARR, 202 Carter Bldg., Houston, Sales Agent

# TEXACO

**Petroleum Products**

## HIGH GRADE UNIFORM QUALITY

| | | | |
|---|---|---|---|
| Naphtha | Pale Oils | Machine Oils | Waxes |
| Gasoline | Red Oils | Cylinder Oils | Asphalts |
| Kerosene | Black Oil | Car Oils | Road Oils |
| Fuel Oils | Floor Oils | Greases | Asphalt Cement |
| Bunker Oils | Paraffin Oils | Cup Greases | Pipe Coating |
| Diesel Fuels | Spindle Oils | Gear Lubricants | Roofing |
| Signal Oils | Motor Oils | Axle Greases | Roofing Cement |
| Miners Oil | Engine Oils | Solid Lubricants | Petroleum Coke |
| Gas Oil | Dynamo Oils | Wire Rope Lubricants | |
| Distillates | | | |

## THE TEXAS COMPANY

**New York** 17 Battery Place

**Chicago** McCormick Bldg.

**Houston** The Texas Co. Bldg.

Offices in Principal Cities

**Export Dept.** 17 Battery Place, New York

Grove City, Pa.—Represented by H. D. Murray, chief engineer; C. F. Fithian, sales manager; B. L. Potter, manager Southwestern branch, and F. B. Dunlap, Tulsa manager. Exhibit consisted of a 165-horsepower type 10, direct driven gas compressor in operation, running on its own power.

**Black, Sivalls and Bryson, Inc.,** Bartlesville, Okla.—Exhibiting Perfection vapor pressure tanks in action. Represented by A. H. Black, president; W. G. Bryson, vice president; E. F. Black, treasurer; J. A. Sivalls, secretary, and Glenn Skinner, general manager.

**Blackman - Hill - McKee Machinery Company,** St. Louis, Mo.—Represented by R. W. McPhee, Blanchard O. McKee, Ralph W. Nazel, Arthur Koller, Edward H. Stein and Arlington Nuetzel. Exhibit consisted of a three-foot radial drill, American oil country lathe, built for oil field work, and Nazel air hammers.

**Blackmer Rotary Pump Company,** Petoskey, Michigan — Represented by James Lyons, district manager, Kansas City; R. F. Leinberger, district manager, St. Louis, and F. E. Goodwin, Oklahoma representative. Exhibit consisted of rotary power and hand pumps.

**Blaisdell Machinery Company,** Bradford, Pa.—Represented by C. A. Spreter, Jr., salesman. Exhibit consisted of Blaisdell pump jack in operation.

**The Braden Company,** Tulsa—Exhibiting E-Z steel houses for oil field use. Represented by J. G. Michaelson, general manager.

**Bradford Motor Works,** Bradford, Pa. — Exhibiting Bradford seamless steel barrels, polish rods, Bramo pumps, etc. Represented by G. B. Morris, president, and M. F. Brennan, chief salesman.

**Bradford Rig and Reel Company,** Tulsa—Exhibiting Bradford standard rig irons, steel tanks and oil field supplies. Represented by F. J. Bradford, president; V. H. Van Horn, secretary-treasurer; F. M. Bohn, salesman.

**Bridgeport Machine Company,** Wichita, Kansas—Represented by J. A. Woods, A. A. Buschow, W. C. Meek. Exhibit consisted of a complete line of fishing and drilling tools for rent and sale.

**Brown Welding and Machine Company,** Breckenridge, Texas—Represented by C. H. Brown, manufacturer, and Cleve Johnson. Exhibit consisted of fishing tools.

**Bovaird Supply Company,** Tulsa—Represented by W. J. Bovaird, president, Independence, Kansas; D. G. Bovaird, second vice president; W. M. Bovaird, secretary-treasurer; R. M. McMahan, assistant secretary-treasurer and purchasing agent; F. Charles Shugart, sales manager, Tulsa, and George Krell, mechanical engineer. Exhibit consisted of Bovaird grip casing and tubing elevator and Bovaird spiders.

**Burns Tool Company,** Okmulgee, Okla.—Represented by F. G. Irvine, salesman, and H. G. Weaver, sales manager. Burns patented tubular temper screws were featured in the exhibit.

**The Philip Carey Company,** Cincinnati, Ohio—Represented by J. C. Rector, L. E. Whitaker and W. F. Catlett. Exhibit consisted of heat insulating material as applied to high temperature work.

**Chain Belt Company,** Milwaukee, Wis.—Represented by T. F. Scannell of St. Louis and R. G. Davis and W. H. Brandt of Milwaukee. Exhibit covered a working model of a chain drive equipped with Rex Chabelco chains.

**There were 40,816 paid admissions to the International Petroleum Congress and Exposition, according to an official announcement by the management Monday. It is believed that approximately $18,000 in insurance will be collected by the exposition officials for the last three days of the show, when rain fell almost continuously.**

**Clark Brothers Company,** Olean, N. Y., and **Gas Engineering and Construction Company,** Pittsburgh, Pa.—Represented by C. P. Clark, secretary and assistant treasurer, of Olean; William G. Cummings, Tulsa; O. B. Agner, Pittsburgh; William Bendean, Olean, and C. L. Cron, Casper, Wyo. Exhibit consisted of a Clark 80-horsepower direct driven gas compressor and a Clark junior drilling engine.

**Clifford Manufacturing Company,** Tulsa—Represented by Victor Clifford, W. M. Crinner, B. F. Ingraham, officials. Exhibit consisted of differential lubricated vapor valves.

**Columbus Steel Tank Company,** Kansas City—Exhibiting truck, bolted, gas tight tanks and welded tanks. Represented by E. E. Wild, manager; H. R. Leland, J. S. Foley and C. L. Robinson.

**D. F. Connolly Agency, Inc.,** Tulsa—Exhibiting Farrar and Trefts steam boiler in actual operation. Represented by Frank P. Monahan.

**Continental Supply Company,** St. Louis—Represented by J. H. Kountz, district manager, and George Stage, assistant manager, Tulsa. Exhibit consisted of general oil field supplies.

**Cosden Company, Tulsa** — Exhibit consisted of a complete showing of the various products manufactured from crude oil.

**Crowell Packer Company,** Tulsa—Exhibiting a full line of Crowell packers, oil saver, etc. Represented by H. E. Robinson, sales manager; W. H. Lynch and "Dutch" Tschappert, salesmen.

**Deck Clamp Tank Co.,** Okmulgee, Okla.—Represented by George F. Deck, assistant secretary-treasurer, and Charles B. Johnson, sales manager. Exhibit consisted of a deck clamp tank.

**DeLaval Separator Company,** New York—Exhibiting centrifugal oil treating machines for cut oil and tank bottoms. Represented by Paul S. Reed of Tulsa, Captain Hazen Follansbee of Tampico, Mexico, and A. F. Meston of Poughkeepsie, N. Y.

**Should the present low price of oil continue some form of state regulation of production within the governmental province is virtually inevitable, declared E. W. Marland of Ponca City, Oklahoma, president of the Marland Oil Company, in an address before the International Petroleum Exposition and Congress. Mr. Marland urged the drafting of conservative legislation for submission to all states within which oil is produced.**

**Eagle Pitcher Lead Company,** Joplin, Mo.—Represented by Bill Bailey, sales representative. Exhibit consisted of block lead, babbits, white lead, blue lead and lead wool for drilling plugs.

**Eastern Torpedo Company,** Toledo, Ohio—Represented by W. H. Jeffry, D. A. Koons, W. H. Swartz. Exhibit consisted of a shooting car that had been run 60,000 miles without a single mishap.

**R. F. Elęctrical Manufacturing Company,** Augusta, Kansas—Represented by John L. Baker, Oklahoma representative; George F. Williams, factory representative. Exhibit consisted of vertical turbine generators for oil field lighting purposes.

**B. V. Emery & Co.,** Tulsa—Represented by Bailey V. Emery, president; Ala B. Irving, secretary-treasurer. Exhibit covered D. & B. pumps and other oil well supplies.

**Empire Natural Gas Company,** Bartlesville, Okla.—Represented by H. D. Hancock, district engineer; C. H. Koinn, engineer; Mr. Lohman, engineer. Exhibit consisted of a pipe line system of distribution used by the Empire Company.

**"Floridin Company,"** Warren, Pa.—Represented by W. L. MacGown, vice president and general manager, Quincy, Florida, and R. C. Wallace, chemist, Quincy, Florida. Exhibit showed filtering and bleaching of lubricants and petroleum products, demonstrating the bleaching efficiency of Fullers earth.

**Foamite Childs Corporation,** Utica, N. Y.—Foamite fire extinguishers, engines, etc. Represented by A. E. Canaday of Kansas City, and H. P. Maginnis of Tulsa.

**The Foxboro Company, Tulsa**—Represented by W. C. Brown, general manager; A. J. Kerr, J. B. McMahon and H. L. Bailey. Exhibit consisted of vacuum and pressure meters, and a complete line of indicating and recording meters and gauges.

**Freeborn Engineering Corporation,** Tulsa—Represented by T. P. Moote, H. L. DeBar and H. Julius. Exhibit consisted of maps and charts for showing valuations and appraisals of oil properties.

**Frick-Reid Supply Company,** Tulsa—Represented by M. L. Moore, first vice president; J. E. Swindler, second vice president; J. L. Shakely, sales manager; E. B. Thornburg, purchasing agent; O. L. Staples, manager machinery department. Exclusive agents for the following products: Ratigan sure grips, Axelson pumps, camel hair belts, Frick-Reid generators for derrick and industrial lighting, Reid band wheels, Reid oil engines, Reid gas engines, National transit pumps, Beaumont Iron Works' "Dreadnaught Rotary" drilling outfit, Whitlock cordage equipment, Rensselaer valves, Arbon packers, flow and pumping jets.

**Gas-Tite Device Company,** Pawhuska, Okla.—Represented by T. H. Boyd, superintendent of the company and patentee of devices, and W. G. Kiser. Exhibit consisted of several tanks showing devices in place.

**Gaso Pump Company,** Tulsa—Repre-

sented by L. D. Armstrong. Exhibit consisted of a general line of oil field pumps.

**General Motors Truck Company,** Pontiac, Mich.—Represented by Estel Scott, Kansas City manager; C. F. Rouze, factory district sales manager; J. M. Moncrief, state representative for Oklahoma. Exhibit consisted of the G. M. C. oil field special truck.

**Goodyear Tire and Rubber Company,** Akron, Ohio—Represented by W. J. Brunk, Tulsa representative. Exhibit consisted of drilling and pumping belt and oil field hose.

**Graver Corporation,** East Chicago—Represented by James P. Graver, president. Exhibit consisted of literature showing Graver products. A well furnished booth was maintained as a meeting place for friends.

**Gustin-Bacon Manufacturing Company,** Kansas City, Mo.—Represented by N. M. Grove, branch manager; E. J. Goetze, treasurer; M. C. Freer and M. D. Duval, representatives. Exhibit consisted of oil field belting, leather belting, packing and mechanical rubber goods.

**Guiberson Corporation,** Dallas, Texas—Represented by S. A. Guiberson, Jr., president; W. R. Guiberson, first vice president; R. S. Haseltine, second vice president and general manager; N. G. Guiberson, treasurer; R. A. Wilson, director of manufacturing; A. B. Stilwell, district manager; M. V. Kappele, field representative; Mr. Harris and F. J. Izzard, field representatives. Exhibit consisted of oil well specialties.

**Erle P. Halliburton,** Duncan, Okla.—Exhibiting patented process for cementing oil wells.

**Harrisburg Pipe and Pipe Bending Company,** Harrisburg, Pa.—Represented by Mr. Frey and Mr. Corbett of Pennsylvania, and H. H. Goddard and O. C. Thomas, Tulsa. Exhibit consisted of seamless steel couplings, swedge nipples and bull plugs.

**The Highland Body Manufacturing Company,** Cincinnati, Ohio—Represented by Samuel Froome, traveling sales manager. Exhibit consisted of a universal cab for motor trucks.

**Hill, Hubbel & Co.,** San Francisco—Exhibit consisted of showings of protective coatings.

**Hill Clutch Company,** Cleveland, Ohio—Represented by Hunter Morrison, sales manager. Exhibit consisted of Smith-Type Hill friction clutch of latest design, and Hill collar oil and bearings.

**Hinderliter Tool Company,** Tulsa—Represented by Frank J. Hinderliter, general manager; H. B. Hendershot, sales manager; A. G. Lott. Exhibiting a complete line (made in Tulsa) of drilling and fishing tools.

**Hope Engineering and Supply Company,** Mt. Vernon, Ohio—Represented by D. W. McKay, manager Tulsa office, and J. M. Story. Exhibit covered heat exchangers, Reeves vertical gas engines and Hilderbrand biplane compression valves in action.

**Hopkins Motor Company,** Tulsa—Exhibiting International Harvester tractors and trucks and Bay City winches. Represented by L. V. Hopkins, manager; S. A. Bodine, factor representative, and C. B. Curtiss of Bay City, Mich.

**Charles N. Hough,** Franklin, Pa.—Represented by R. H. Lee, Southwestern representative, and O. G. Thompson, sales manager. Exhibit consisted of working barrels, valves, balls and seats, and general pumping equipment.

**Hudson Wire and Iron Company**—Wire products.

**Hughes Tool Company,** Houston, Texas—Represented by W. C. Morgan, representative for Oklahoma, and Mr. Brown, sales manager. Exhibit consisted of rotary rock bits, Simplex disc bits, weight indicators and tool joints.

**Interstate Pipe Company,** Pittsburgh, Pa.—Represented by C. J. Hochenauer, Western sales manager, and J. B. Okie, salesman. Exhibit consisted of a well furnished booth for a rest room. Bachelor kits were distributed as souvenirs.

**International Derrick and Equipment Company, Columbus, Ohio**—Exhibiting derricks, bull wheels, walking beams, etc. Represented by H. M. Runkle, vice president and general manager; R. R. Bloss, manager production; F. W. Mohler and R. W. Henry.

**International Supply Company,** Tulsa—Represented by R. S. McKeever, sales manager; J. W. Sloan, president; S. E. Savage, vice president. Exhibit consisted of drilling and fishing tools, mechanical rubber goods, gas burners and fire box boilers, a Slater Brothers turnbuckle derrick, standardized.

**Jarecki Manufacturing Company,** Erie, Pa.—Represented by J. W. Wells and S. W. Falls, manager Tulsa division, and A. A. Moody, general manager from St. Louis. General oil well supplies comprised exhibit.

**The S. M. Jones Company,** Toledo, Ohio—Represented by P. C. Jones and A. L. Meeks. Exhibit consisted of equipment for pulling sucker rods.

**Kansas City Hay Press,** Kansas City, Mo.—Represented by M. O. Swan, sales manager; R. J. Rogers, Tulsa representative; N. H. Sooy, vice president, and T. H. Chandler of the Stover Engine and Manufacturing Company. Exhibit covered Lightning oil well equipment, Stover engines and Gardner pumps.

**Key Boiler Equipment,** East St. Louis—Represented by Fred Key, vice president, of St. Louis, and F. A. Post, district manager, of Houston. Exhibit comprised steam plant and refinery equipment.

**Keystone Lubricating Company,** Philadelphia, Pa.—Exhibit consisted of lubricating materials for oil field machinery.

**Landis Machine Company,** Waynesboro, Pa.—Represented by C. N. Kirkpatrick and H. W. Marker. Exhibit consisted of a 12-inch threading and cutting machine.

**Leader Iron Works,** Decatur, Ill.—Exhibit consisted of tank and refinery equipment featuring rivet-weld type of construction for stills, agitators, towers, condensers, etc.

**Lehmann Machine Company,** St. Louis, Mo.—Representated by Paul Lehmann and Oliver W. Johaning. Exhibit showed a direct motor driven geared head used for oil country work.

**Link-Belt Company,** Indianapolis, Ind.—Represented by George P. Torrance, sales manager, Indianapolis; Julius Holl, advertising manager, Chicago; M. Giffey, sales engineer, Kansas City; Ralph Weber, engineer, Los Angeles, and Charles Markey, sales engineer, Indianapolis. Exhibit consisted of a complete line of Link-Belt chains.

**Maloney Tank Company,** Tulsa—Represented by R. A. Maloney and J. S. Warren. Exhibit consisted of Maloney Bolted steel tanks.

**Magneto Ignition Company,** Tulsa—Exhibiting K-W magnetos and ignitions and Splitdorf spark plugs. Represented by Otto Woloff and R. E. Day.

**Mason Manufacturing Company,** Tulsa—Represented by R. C. Mason, president; J. W. Minnis, salesman, and George E. Summers, salesman. Exhibit consisted of Mason measure meters, Mason shock absorbers and Mason temper screw lifts.

**A. Y. McDonald Manufacturing Company,** Dubuque, Iowa—Represented by C. L. Reeder, manager oil equipment department, and C. W. Jackson, assistant manager. Exhibit consisted of universal gas-tite dome cover for loading and unloading casing head absorption gasoline, McDonald swing joints, Duplex tank vents and a regular line of valves and fittings.

**J. H. McEvoy & Co.,** Houston, Texas—Represented by J. H. McEvoy, president. Exhibit consisted of wireless well strainers for oil and water wells.

**McGraw - Baughman - Bearly Lumber Company,** Tulsa—Represented by H. L. Dickson, Tulsa, and F. D. Bearly, Oklahoma City. Exhibit consisted of Slater-Turnbuckle drilling derrick used on the cable tool outfit operated on the exposition grounds, and also an improved steel pittman.

**Metric Metal Works. Erie, Pa.**—Represented by J. C. Diehl, L. Adams and C. N. Payne, also G. M. Davis Regulator Company, Chicago, represented by G. C. Davis and G. M. Davis. Exhibit consisted of regulators and valves.

**Midland Supply Company,** Pawhuska, Okla.—Represented by William Gruber, president; R. V. MacMullen, secretary-treasurer, and R. B. Black, field representative. Exhibit consisted of slip sockets, MacMullen bowl, Gruber bailers and Gruber bailer bottoms.

**Mid-West Building Materials Company, Tulsa**—Represented by J. J. Collier, manager, and R. W. Sanderson, salesman. Exhibit consisted of Mueller furnace and Nokol automatic oil burner.

**Mid-West Piping Supply Company,** St. Louis, Mo.—Represented by G. L. Morrill, chief engineer; J. McC. Moffett, secretary. Exhibit consisted of assortment of bends and coils made from steel pipe used in refineries and power plants.

**Milwaukee Tank Works,** Milwaukee, Wis.—Represented by E. A. Canavan, manager of the Texas division. Exhibit consisted of tanks, pumps and air compressors.

**Mine Safety Appliance Company,** Pittsburgh, Pa.—Represented by J. R. Fleming and E. H. Kellogg. Exhibit covered first aid and safety appliances for oil fields and mines.

**Lee C. Moore & Co., Inc.,** Pittsburgh, Pa.—Represented by C. R. Krause, Western manager; E. S. Anderson, assistant Western manager; W. D. Reese, Eastern manager; W. H. Payne, district representative; M. R. Gayle, Southern representative, and J. F. Stephens, treasurer. Exhibit consisted of steel derrick, steel bull wheels, featuring a miniature outfit for cable and rotary drilling.

**Missouri Paint and Varnish Company,** St. Louis—Represented by A. B. Gross, Mr. Norris, G. W. Swearingen, Park D. Cole and A. P. Sinclair. Exhibit consisted of Partlan-Cem-Cote, a special paint made from boiled linseed oil,

# Navajo Indians Benefit From Lease Sale

## Drilling privilege on 21,000 acres is bought for $87,600 at first lease sale

**Santa Fe, N. M., Oct. 15.**—The oil industry today gave public expression of its faith in New Mexico as a petroleum section by bidding $87,600 for drilling privileges on 21,500 acres of San Juan basin lands, a part of the Navajo Indian reservation. The sale, an auction, was conducted after the fashion by which the Osage leases are sold in Oklahoma.

Of the 22 tracts offered, 13 were bought. The nine failing to get bids were on the Hogback structure, where the Midwest Refining Co. now has two producing wells. Four of the tracts were exploratory leases, making up group 1, on which the minimum bid was $1,000. Group 2 consisted of 18 640-acre leases on the Hogback structure.

It was the first offering of Navajo lands at auction. Charles H. Burke, United States Commissioner of Indian Affairs, was present. Herbert J. Hagerman, Commissioner of the Navajos, conducted the sale, which was in the hands of Colonel E. Walters of Skedee, Oklahoma, who has sold all Osage oil leases in his state.

The sale drew representatives from the leading oil concerns, operating in the western States, as well as scores of individuals. Disposition of the tracts follows:

**Group 1**

Beautiful Mountain (4,800 acres) Neil B. Field, Albuquerque, N. Mex., $1,000.

Rattlesnake (4,080 acres) Metropolitan Oil Co., $1,000.

Tocito (4,000 acres) Gypsy Oil Co., $46,000.

Table Mesa (3,200 acres) J. C. Bailey, Denver, Colo., $17,500.

**Group 2**

No. 7, S. C. Munoz, New York, $1800.

No. 8, S. C. Munoz, $2,000.

No. 9, Franklin A. Wagner, New York, $500.

No. 10 (400 acres) J. C. Thurman, Del Monte, Calif., $5,700.

No. 13, J. C. Bailey, Denver, Colo., $3500.

No. 14, W. R. Hart, Aztec, N. M., $1,000.

No. 15, J. C. Bailey, $6,500.

No. 17, Franklin A. Wagner, $500.

No. 18, E. W. Waddell, Okmulgee, Okla., $600.

"New Mexico may become a greater producing field than Oklahoma; you never can tell," said United States Indian Commissioner C. H. Burke in introducing the auctioneer, Colonel E. Walters of Skeedee, Okla., who was loudly cheered.

"You are letting a golden opportunity slip from your grasp," said Walters to the packed Federal court room this afternoon, holding up a small bottle filled with a sample of oil from the Midwest Refining Company, a number one well which he said contained seventy five per cent gasoline. "These leases are the cheapest I've ever sold considering the geology on them," he said, predicting the leases passed today would bring more money at the next sale.

Among the corporations represented among the fifty or more oil men present at the sale were the Ohio Oil Co., Gulf Oil Company, Gypsy Oil Company, Producers and Refiners, Midwest and Standard of California. Present also were independent operators from California, Oklahoma and Texas, including A. B. Boughton, J. J. Hall, Clark Nordenholt and A. B. Beall of Denver who mapped out the Hogback Dome; H. S. Bretschneider, vice president, and George B. Jenkinson, field superintendent of the Midwest, both of Denver were here.

Preceding the auction the Producers and Refiners Oil Company announced it claimed an equity in the Tocito, claiming its application for a lease had been approved by the Indian superintendent Navajo Council, and the company had made a preliminary investment. Commissioner Burke denied the company had an equity, lacking the approval of the secretary of the Interior, and said he would guarantee for the department of the interior that the buyer of the tract would get a good title. Burke repeats his guarantee when another adverse claim was made in the behalf of J. J. Hall. Objection was raised to the leasing of tract 10 and tract 7, first by A. B. Renehan, as attorney for Guy Hoover, who has leases on these lands, then by Dennis Chavez, attorney for the state land office, who said the state of New Mexico claimed these lands and also the river bed of the San Juan River. Mr. Chavez explained these were school sections. They are now in dispute between the State and Uncle Sam.

On each of the four leases on the Tocito, Table Mesa, Rattlesnake and Beautiful Mountain tracts, which so far have not been explored for oil, the lessees must put down two wells, according to Secretary of the Interior Hubert Work's regulations.

The first well is to be sunk at or near the apex of the Dome on each with a standard rig to a depth of 3,000 feet unless oil or gas is found in paying quantities at a lesser depth. In that event the second well is to be drilled to a depth of 3,000 feet unless the secretary grants permission in writing to suspend operations at a lesser depth to test out any sand that may lie below those encountered in the first well.

If oil or gas is discovered in one or both of these wells, the lessee is required to drill a third at approximately 200 feet from the apex of the Dome to test the lowest producing sands encountered in either of the other two.

On each of the 18 tracts on the Hogback Structure where the Midwest Refining Company has brought in two wells producing oil of a high grade, the lessee is required to drill at least one well within a year from the date of approval of his lease.

Each of these wells, on the Hogback is to be drilled to a depth of 2500 feet unless gas or oil is encountered in paying quantities at a lesser depth. Should the first well prove non-productive the lessee has to drill a second within the next succeeding year to the same depth unless oil or gas is found in paying quantities before this depth is reached. The Secretary of the Interior however, may in his discretion, upon application of lessee, extend the time within which any well is to be drilled on payment on an annual rental of $1 an acre for each year the completion of the well is delayed.

---

chinawood oil, turpentine, XX zinc, limeproof colors and Portland cement.

**Murray Tool and Supply Company,** Cleveland, Okla. — Exhibiting Wickwire-Spencer drilling line, Fairbanks valves, Dart unions and oil field supplies. Represented by C. M. Murray and F. W. DeLuce.

**National Carbon Company,** Long Island City—Represented by F. E. Cory and M. C. Spann. Exhibit consisted of Columbia dry cell and hot shot batteries, Ever-Ready flash lights and Mazda Bulbs.

**National Supply Companies,** Toledo —Exhibiting a general line of oil field supplies. Represented by O. T. Dawson and B. B. Wasson, district managers.

**National Tube Company,** Pittsburgh, Pa.—Exhibiting general line of oil country tubular goods. Represented by A. L. Schaeffer, advertising manager; J. L. Smith, advertising department, and J. B. Graham.

**Norris Brothers, Inc.,** Robinson, Ill. —Represented by B. E. Norris, president; F. H. Norris, vice president. Exhibit consisted of oil pumping equipment, non-corrosive oil well valve balls and seats.

**Walter O'Bannon Company,** Tulsa—Exhibit consisted of liner barrels, sucker rods, sockets, bell niples, elevators, sucker rod hooks and rotary pumps.

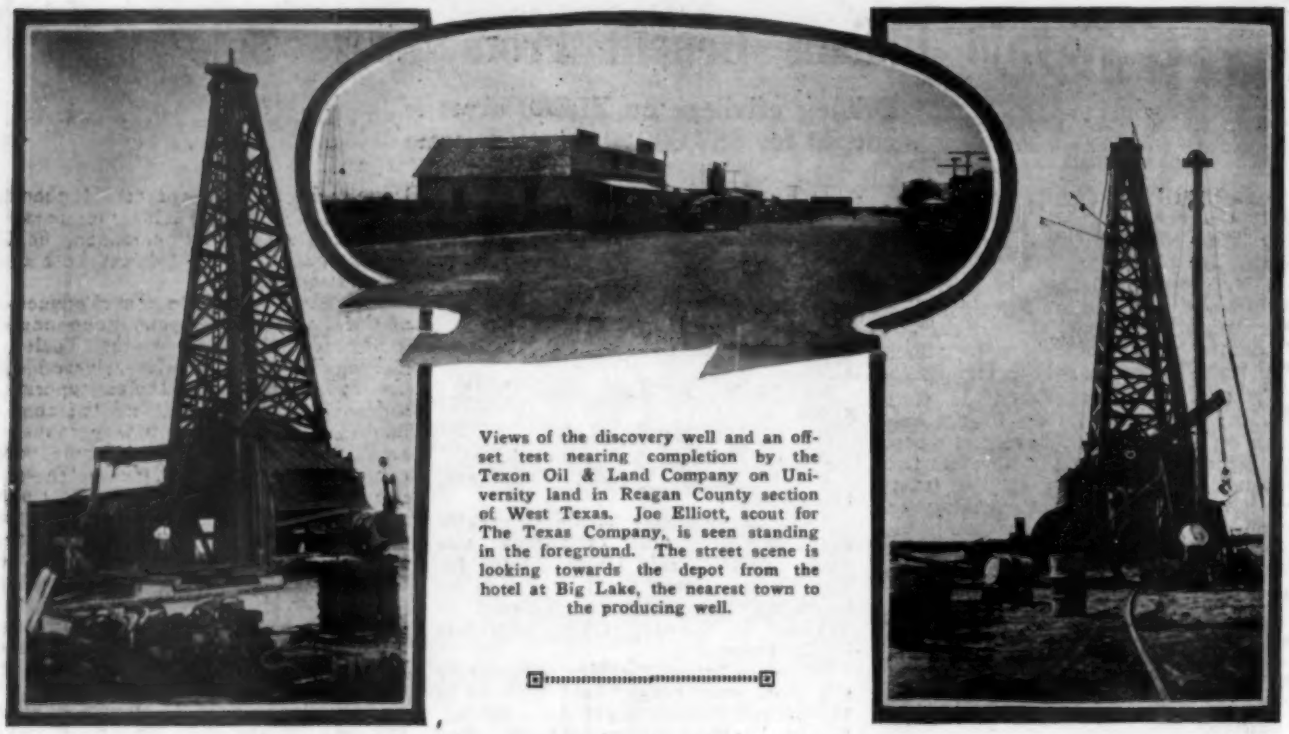
**Ohio Machine Tool Company,** Kenton, Ohio—Joe Hanning, representative Colcord-Wright Machine and Supply Company; R. E. McArdle, representing P. H. McArdle Equipment Company, New Orleans. Exhibit consisted of a 32-inch dreadnaught shaper.

**The Oil Conservation Engineering Company,** Cleveland, Ohio—Represented by S. H. Brooks, president; Mr. Calhoun, vice president; R. Greve, representing Pacific Fire Extinguisher Company. Exhibit consisted of equipment for oil conservation through leakage and fire prevention.

**Oil Well Improvement Company,** Tulsa—Represented by Alf G. Heggem, Mark Davis and Eugene W. Wright, officials of the company. Exhibit consisted of casing heads, oil savers, top casing heads and casing head T's.

**Oil Well Supply Company,** Pittsburgh—Represented by D. J. Brown, vice president in charge of sales; W. B. Glover, sales manager; J. Clark Reed, vice president in charge of branches; H. C. Burns, treasurer; Louis Greavs,

(Continued on page 15)



Views of the discovery well and an offset test nearing completion by the Texon Oil & Land Company on University land in Reagan County section of West Texas. Joe Elliott, scout for The Texas Company, is seen standing in the foreground. The street scene is looking towards the depot from the hotel at Big Lake, the nearest town to the producing well.

# West Texas Producer and Acreage Sold to Benedum & Trees for Close to a Million

**Pittsburgh, Pa., Oct. 17.—Benedum-Trees interests here confirm purchase by Transcontinental Oil Company of oil leases on some 10,200 acres of land in Reagan County, Texas, for reported consideration of approximately one million dollars. Properties which include one producing and two drilling wells were sold by Texon Oil and Land Company of El Paso, Texas.**

San Angelo, Texas, Oct. 15.—Negotiations are being completed by the Benedum-Trees (Transcontinental Oil Company) interests of Pittsburgh to acquire from the Texon Oil and Land Company the controlling interest in the discovery well of the high gravity oil pool uncovered last May on Texas University land in Reagan County section of West Texas along with leases on 16 sections of land in the vicinity of the producer for a substantial cash consideration and four free wells. According to tentative plans, a new corporation is to be formed to hold and develop these 16 sections of land, and the Benedum-Trees Interests are to have control with a three-quarter interest, while the Texon Oil & Land Company will possess the remaining quarter interest. Included in the transaction are two offset tests to the discovery well, and both are reported to have been idle during the past week with fishing jobs at 2760 and 530 feet.

The producing well involved in the deal was brought in May 28 from sandy lime pay at 3026 feet flowing by heads at rate of 80 to 100 barrels of 38 gravity paraffin base oil with considerable open hole. A string of 6⅝-inch casing was later set at 3010 feet resulting in the well increasing its flow slightly, but water soon broke in. The casing was reset to correct the water trouble, and is now reduced to a minimum. When the well was first placed on the pump it gauged better than 200 barrels daily, and has since settled down to about 150 barrels, although the boiler and pumping equipment is reported to be in such shape that the potential output of the well is not being obtained.

The performance of this well after being completed more than four months ago is conceded to be worthy of consideration by the majority of the major operators in the state who have lately taken on a limited amount of protection in Reagan County and in Crocket County to the south, as it is a rank wildcat and one of the most encouraging strikes made to date in far West Texas for oil production. The Texon Company are selling part of the production for fuel in drilling tests in nearby counties, in addition to making weekly tank car shipments to the Rio Grande Oil Company's refinery at El Paso.

## *Hot Off the Wire*

The Humble has bought ten 55,000-barrel tanks from the Humphreys Oil Company near Powell, the tanks having been erected some time ago. The company also has placed orders for ten 55's with the Petroleum Iron Works for immediate erection and has given an order to Reeves Brothers for five more.

Arrangements have been made by the Humble Oil & Refining Company to move 20,000 barrels a day of Humble crude from Powell to the Gulf via the Sinclair line recently completed.

**Houston, Texas, Oct. 18.**—At last reports today the other purchasing companies in the Gulf Coast district continue to stand pat on their old price, with the Gulf Pipe Line Company being the one buying at the new price made on October 16.

Last Tuesday the Gulf announced a 25-cent reduction in all Gulf Coast crudes.

### A NEW AMERICAN RECORD

A new record for production in a single field by a single company has been made and broken repeatedly during the past week by the Humble Oil & Refining Company. On Tuesday that company's production was 104,370 barrels at Powell alone, with a number of wells pinched in. It is estimated that the company, by opening up wells now choked down, could advance its production to 125,000 barrels a day immediately. Its present production at Powell is, however, greater than that ever held by one company over a week's period in any field in the United States.

**Casper, Wyo., Oct. 18.**—Due to the storms and floods which have been experienced over all sections of the Rocky Mountain district during the past few days, production dropped from around 160,000 barrels for the previous week to 89,000 barrels for the seven days just ended.

**Los Angeles, Calif., Oct. 17.**—Midway Northern's No. 2 at Torrance field is making 1000 barrels at about the same depth as the first well. Getty's Neil well in the same locality was tested for production and will be drilled deeper. The C. C. M. Oil Company has completed two small pumpers in the old part of the Torrance field.

**Los Angeles, Calif., Oct. 17.**—Associ-Oil Companies' Clark 6 at Santa Fe Springs has been plugged back to 4700 feet and is good for 4000 barrels.

**Contributors to Exposition's Success**

(Continued from page 13)

mechanical engineer; J. D. Lemex, district manager of Mid-Continent; Harry Morlang, John Post and W. A. Scott. Exhibit consisted of "Oilwell" Imperial rotary drilling outfit, improved portable turnbuckle derrick, and Young drilling engine.

**Oklahoma Iron Works, Tulsa**—Exhibiting oil well equipment and tool joints. Represented by A. F. Bourne, secretary and treasurer.

**Oklahoma Steel Castings Company,** Tulsa—Represented by E. H. Cornelius, president. Exhibit consisted of steel castings, all oil well supply castings and large steel crank shafts for pumps and pipe lines.

**Oxweld Acetylene Company,** Chicago—Exhibiting welding and cutting machines. Represented by C. E. Ziesel, assistant sales manager; L. B. Moon, Tulsa representative; Z. T. Davis of New York.

**P. H. & F. M. Roots Company,** Connorsville, Ind.—Represented by W. L. Sexton, Connersville, and W. Woodbank, Tulsa. Exhibit consisted of a complete line of rotary pumps for oil, gases and water, and also rotary gas and oil meters.

**Palmer Specialty Company,** Tulsa—Represented by B. F. Palmer, president; J. W. Salles, sales manager, and B. F. King, salesman. Exhibit consisted of original control head with ball bearings and steam snuffer.

**Parkersburg Rig and Reel,** Parkersburg, W. Va.—Represented by J. M. Crawford, president; H. J. Lockhart, general manager; A. V. Wadsworth, foundry superintendent; S. P. Wallace and L. G. E. Bignell, salesmen, and D. F. McCarty, district manager. Chain driven sand reels and rig irons were featured.

**The Pattin Brothers Company,** Marietta, Ohio—Represented by W. F. Meister, president; J. S. Blair, treasurer; A. S. Dunnington, Tulsa representative, and J. W. Noland, Texas representative. Exhibit consisted of a 12-horsepower combination gas engine and power outfit.

**Petroleum Safety Appliance,** Tulsa—Represented by W. E. Omeilia, sales manager; S. C. Clover, president, and M. K. Clover, vice president. Exhibit consisted of liquid safety valves and thief-hole devices to prevent evaporation losses and insure positive safety to tight tanks from being ruptured by pressure or collapsed by vacuum.

**Pioneer Tank and Boiler Company,** Tulsa, Okla.—Exhibited tanks, plate work and general refinery and oil field storage products. Represented by J. F. McKelvey, general manager.

**Power Engineering and Ignition Company, Inc.,** Tulsa, Okla.—Represented by M. C. Elsworthy, president and general manager, and E. G. Grigoleit, vice president and assistant manager. Exhibit consisted of Appollo magnetos for gas engines, Hills McCanna lubricators, and Wico igniters.

**Pratt & Whitney Company,** Hartford, Conn., subsidiary of Niles-Bement-Pond Company, New York City—Represented by B. H. Blood, general manager; Major Earl Buckingham, C. L. Goodrich. Exhibit consisted of master gauges on all sizes of pipe, Briggs standard, from one-eighth to six inches.

**Producers and Refiners Corporation,** Tulsa—Petroleum products.

**Progressive Brass Manufacturing Company,** Kansas City—Exhibiting bronze and brass castings, engine brasses and check valves. Represented by E. J. Thomas, president, and A. N. Porter, Tulsa representative.

**Pyle National Company,** Chicago—Represented by Chas. T. Tewkesbury, Tulsa. Exhibit consisted of Pyle National generators for oil field lighting purposes.

**Rand-McNally & Co.,** Chicago—Represented by T. J. Hayden, Charles E. Carlson, George Lockridge, and H. M. Spencer. Exhibit consisted of maps and road guides.

**Reed Roller Bit,** Houston, Texas—Represented by C. E. Reed, vice president and general manager. Exhibit consisted of Reed roller bits.

**Reliance Steel Derrick Co.,** Tulsa—Represented by A. H. Jameson, chief engineer, and Howard Hannah, president. Exhibit consisted of steel derrick, wire lines, and garbage receivers.

**Republic Supply Company**—Represented by J. H. Brooks, Tulsa manager. Exhibit consisted of oil well supplies.

**Rock Island Plow Company,** Rock Island, Ill.—Exhibiting Heider portable winch and Rock Island power unit. Represented by L. F. Cannon, general trade manager; A. H. Gilbert, chief engineer; H. O. Bird, factory representative.

**Robinson Packer Company,** Tulsa—Represented by W. G. Long, H. L. Kine, M. C. Wertz, officials. Exhibit featured a new swab, Bruce automatic gas separator, limit plugs and other packers for oil and gas well uses.

**Ryan Motor Company,** Tulsa—Ex-

WALL STREET doesn't end at Broadway. Invisibly it continues west from the Money center of the world to the Mid-Continent oil field. Broad and Wall in New York is very close to Third and Boston in Tulsa. Wall Street KNOWS before it acts on oil finance. To a great extent, it learns what it desires to know about men, firms, properties and production from the Exchange Banks of Tulsa. Complete reports by wire to Eastern correspondents and depositors. Western depositors benefit by the more intimate knowledge available to us through close personal relationship. It is worth much to be a depositor with the Exchange Banks of Tulsa.

DIRECTORATE:

W. W. Hinkley — E. P. Bower
W. A. Reynolds — Jno. T. Mary
J. A. Chapman — R. M. McPaulin
J. H. Dyke — J. J. Mellor
Frank Hinkley — J. H. Markham, Jr.
A. T. Allen — J. J. Lasley
R. H. Rogers — D. H. Kelsey
J. A. Hall — H. F. Hinkley
R. G. Bernard

**EXCHANGE BANKS OF TULSA**

The Exchange National Bank — The Exchange Trust Company

*Combined Resources Exceed Forty Million Dollars*

# Knights of the Derrick Organize for Purpose of Sponsoring Oil Men's Home

**Tulsa, Oklahoma, Oct. 16.**—"Knights of the Derrick," recently organized fraternal and benevolent organization for oil men, has set out on what is planned to be a permanent order. Membership applications received during the International Petroleum Congress and Exposition have not all been registered, but it is estimated that something like three hundred names will appear as charter members when the roll is completed.

The basis idea expressed at the charter meeting in Tulsa was that of building a permanent home for oil men who have served their best days in the industry's service and who find themselves, in their old age, unable to take care of themselves.

The Tulsa "location" is the first one to be established, and as the organization grows stronger, "locations" probably will be established in other oil towns. The membership of the original location is not, however, limited to residents of Tulsa, but is composed of oil men from all parts of the United States.

A business meeting was held last week at which nominating and constitution and by-laws committees were appointed. The following men were selected as a nominating committee to nominate officers for the organization: P. M. Miskell, chairman; R. F. MacArthur, general manager Barnsdall Refining company; L. B. Jackson, president of the International Petroleum Exposition and Congress; S. R. Scivally, manager of eastern market division of Union Petroleum Company; H. W. Roe, traffic manager of Cosden Company; J. D. Lemex, district manager Oil Well Supply Company; W. N. Davis, president Mid-Continent Oil & Gas Association; A. W. Leonard, D. E. Buchanan, vice-president of Chestnut & Smith Corporation; A. V. Borque, chairman of organization committee of Knights of the Derrick; R. L. Dudley, editor of The OIL WEEKLY, and all other editors of oil trade journals.

As soon as the committees have had time to make their reports, members of the organization will vote on their suggestions by mail. Application for a charter in Oklahoma is being made.

Knights of the Derrick, as described by a member of the International Petroleum Exposition and Congress, is "A non-political non-sectarian, social organization made up of oil men from every branch of the industry."

---

hibit consisted of Fordson tractors in operation.

**Joseph T. Ryerson & Sons, Inc.**, Chicago—Exhibit consisted of lathe and threading machines.

**S.-K-F Industries, Inc.**, New York City—Represented by H. L. Gaddis. Exhibit consisted of new pumping equipment.

**Safety Pulling Machine Co.**, Independence, Kan.—Represented by Thomas G. Laney and Owen A. Thompson, Independence. Exhibit consisted of a Safety pulling machine in operation.

**The Shaffer Specialty Company**, Tulsa—Represented by H. F. Hinish, E. J. Shaffer and George W. Shaffer, officials of the company. Exhibit consisted of a Shaffer Almetal sand reel support, a Shaffer four-in-one sucker rod socket and safety clamps. A feature exhibit showed products manufactured from salt water.

**Silumite Products Corporation**, Philadelphia, Pa.—Represented by D. Z. Ault. Steel protective paints of acid proof and non-corrosive qualities comprised exhibit.

**M. B. Skinner Company**, Chicago—Represented by M. B. Skinner. Exhibit consisted of Skinner clamps and saddles, and special gaskets.

**Southwest General Electric Company**, Dallas—Represented by D. U. Gaston, Tulsa representative, and D. L. Cramb, Schenectady, New York. Exhibit consisted of a two-speed oil well motor, lighting generators, arc welding generators and Mazda lamps.

**Southern Mill and Manufacturing Company**, Tulsa—Exhibiting sectional houses for oil field use. Represented by W. H. Ahrens, president; J. P. Francisco, superintendent; C. H. Ahrens, manager house department.

**Southwestern Specialty Company**, Tulsa—Represented by E. H. Morgan, president. Exhibit consisted of Swartwout ventilators and portable steel buildings.

**Standard Machine & Tool Company**, Bristow, Okla.—Represented by J. R. McCoy, manager. Exhibit consisted of Standard underreamers and tongs.

**Standard Tank Car Company**, St. Louis—Represented by F. A. Singler, Southwestern sales manager, and Frank Thompson, salesman. Exhibit consisted of photographs showing details of tank car construction in Standard tank cars.

**Sullivan Machinery Company**, Chicago—Represented by H. G. Walsh, general sales manager; J. S. Mitchell of the diamond drill department; D. H. Hunter, manager of Dallas office; George E. Failing, state agent for Oklahoma, and E. E. Wagoner, Tulsa representative. Exhibit showed structure diamond core drills for large and deep wells.

**Sun Oil Company**, Dallas—Petroleum products.

**Superior Tube Company**, Tulsa—Ferris F. Hamilton. Exhibit consisted of oil well casing.

**Templeton-Kenly & Co., Ltd.**, Chicago—Represented by H. B. Burlow, Chicago. Exhibit consisted of Simplex jacks for oil field service.

**The Texas Company**, Houston, Texas—Represented by L. H. Daniels, Oklahoma City; H. F. Faber, Oklahoma City; F. A. Affleck, Oklahoma City; Gus Shanks, Little Rock; J. N. Pruitt, Oklahoma City, and Mr. Beeman, Houston, Texas, and P. M. Rawls, special agent, Tulsa. Exhibit consisted of a miniature shipping dock carrying out the slogan "The Sun Never Sets on Texaco Products," along with various petroleum products.

**Triangle Blue Print Company**, Tulsa—Represented by L. C. Buckfield and H. V. Lindy, Tulsa, and H. E. Bowman, St. Louis. Exhibit consisted of Keuffel & Esser drawing materials and surveying instruments.

**Trimont Manufacturing Company**, Roxbury, Mass.—Represented by H. H. Wotherspoon. Improved pipe wrenches and monkey wrenches comprised exhibit.

**Truscon Steel Company**, Youngstown, Ohio—Represented by W. K. Sparks and W. L. Quigley, Youngstown representatives. Exhibit consisted of demonstrations showing steel used in Truscon steel buildings.

**Tulsa Rig Reel and Manufacturing Company**, Tulsa—Exhibiting American steel derricks, Twin City tractor hoists, Doreco gas burner and American pony bull wheels. Represented by Walker S. Estes, manager derrick department; A. L. Keltner and F. A. Funk.

**Twin Packer Company**—Oil packers.

**Union Machine Company**, Bartlesville, Okla.—Represented by H. G. Durnell, vice president and general manager; S. T. Steel, secretary, and Claude Ross, machinist. Exhibit consisted of band wheel pumping outfit for pumping deep wells.

**United Lead Company**, New York—Exhibit consisted of demonstration of sludge acid recovery by the Simonson-Mantins vacuum process.

**W-K-M Company, Inc.**, Houston, Texas—Represented by L. O. Koen, vice president; J. D. Nixon, C. S. Campbell, G. C. Ross, Homer Knight, J. W. Gillespie and Bert L. Ligon. Exhibit consisted of slips, tool joints and tongs.

**Walworth Manufacturing Company**, Boston, Mass.—Represented by W. C. Gaza, assistant manager Western division; Julius Schoekel and D. F. Moran, sales representatives. Exhibit comprised brass valves, Kewanee specialties and genuine Stillson wrenches.

**Westcott & Greis, Tulsa**—Represented by H. P. Westcott and E. A. Frank; H. Wahl, Dallas; E. V. Zull, Shreveport; A. J. McEwan and J. H. Satterwhite, Tulsa. Exhibit consisted of material for measurement and control of gas, air, steam, oil and water.

**Westinghouse Electric and Manufacturing Company**, Pittsburgh, Pa.—Represented by C. R. Powell, D. L. Johnson and Paul Orr, representatives in the petroleum industry, and C. S. Carter, Tulsa representative. Exhibit comprised a two-motor drilling equipment and pumping outfit. Other representatives were: A. E. Hitchner, H. E. Dralle, O. Bieler, all of Pittsburgh, and W. F. Barnes of St. Louis, manager of the Mid-Continent field.

**Western Supply Company**, Tulsa—Exhibiting wire line drilling clamp, Clulow pump tubing and sucker rod socket, Hardenburg underreamer. Represented by H. D. Cornell, vice president and sales manager L. B. Holmes.

**Wheeling Steel Corporation**—Steel products.

**The White Company, St. Louis**—Represented by Saunders Jones, regional vice president; J. D. Allen, district manager of Kansas City; Eugene Kelly, district manager of St. Louis; P. E. O'Connor, national sales manager; Ed Reese, president of Barnsdall Refining Company; George D. Locke, vice president of Barnsdall Refining Company; F. Neal, treasurer of Cosden Company; George Pohler, purchasing agent for Cosden Company; W. B. Pryor, vice president Gulf Refining Company, and C. B. Singleton, purchasing agent of Roxana Petroleum Company. Exhibit consisted of photographs of White trucks used by oil companies throughout the world.

# CRUDE AND REFINED MARKET QUOTATIONS

## Crude Oil Prices

October 16.—Effective this morning, the Gulf Pipe Line Company announced a reduction of 25 cents in Gulf Coast crudes, making all grades except Pierce Junction and Blue Ridge $0.75. Blue Ridge and Pierce Junction were brought down to $0.65.

October 12.—Effective this morning, the Magnolia Petroleum revised its price schedule for buying oil in North Texas and Oklahoma, changing the 33 to 39.9 gravity to $1.10, or a reduction of 20 cents; 40 and above gravity was cut to $1.25, or a reduction of $0.50. The company announced that it would take all oil under the new schedule.

### EASTERN STATES

| | Oct. 20 1923 | Oct. 21 1922 |
|---|---|---|
| New York Transit | $2.75 | $3.00 |
| Bradford (Pa.) | 2.75 | $3.00 |
| Other Pa. grades | 2.50 | 3.00 |
| Cabel | 1.35 | 1.86 |
| Ragland | .75 | 1.00 |
| Corning | 1.45 | 1.75 |
| *Somerset, heavy | 1.25 | 1.71 |
| *Somerset, light | 1.40 | 1.96 |

*Six cents above posted price since October 1, 1922.

### CENTRAL STATES

| | | |
|---|---|---|
| Illinois | 1.47 | 1.77 |
| Indiana | 1.48 | 1.78 |
| North Lima | 1.68 | 1.98 |
| South Lima | 1.68 | 1.98 |
| Plymouth | .85 | 1.15 |
| Princeton | 1.47 | 1.77 |
| Lodi | 1.50 | ... |
| Waterloo | .95 | 1.25 |
| Wooster | 1.50 | 1.90 |
| Western Kentucky | 1.20 | ... |

### MID-CONTINENT

(Oklahoma, Kansas and North Texas)

| | | |
|---|---|---|
| Below 33 gravity | .90 | ... |
| 33 to 39.9 gravity | 1.30 | ... |
| 40 gravity and above | 1.75 | ... |

(Magnolia Prices)

| | | |
|---|---|---|
| Below 28 gravity | .50 | ... |
| 28 to 30.9 gravity | .70 | ... |
| 31 to 32.9 gravity | .90 | ... |
| 33 to 39.9 gravity | 1.10 | ... |
| 40 gravity and above | 1.25 | ... |

### NORTH CENTRAL TEXAS

| | | |
|---|---|---|
| Corsicana (Light) | 1.00 | 1.00 |
| Corsicana (Heavy) | .50 | .65 |
| Thrall | 1.00 | ... |
| Powell Field | 1.00 | ... |
| Mexia | 1.00 | 1.25 |
| Currie | 1.00 | 1.50 |

(Humble Oil & Refining Co.'s Prices)

| | | |
|---|---|---|
| Below 30 gravity | .90 | ... |
| 30 to 32.9 gravity | 1.10 | ... |
| 33 to 35.9 gravity | 1.20 | ... |
| 36 to 38.9 gravity | 1.35 | ... |
| 39 gravity and above | 1.50 | ... |

(Texas Company's Prices)

| | | |
|---|---|---|
| Below 33 gravity | .90 | ... |
| 33 to 39.9 gravity | 1.10 | ... |
| 40 gravity and above | 1.25 | ... |

### SOUTH TEXAS

Rockdale-Minerva

| | | |
|---|---|---|
| Below 38 gravity | 1.05 | ... |
| 38 gravity and above | 1.15 | ... |
| Mirando | .75 | ... |

### SOMERSET

(Posted by Grayburg Refining Co.)

| | Oct. 20 1923 | Oct. 21 1922 |
|---|---|---|
| Below 28 gravity | .65 | ... |
| 28 to 29.9 gravity | .80 | ... |
| 30 to 32.9 gravity | .90 | ... |
| 33 to 34.9 gravity | 1.00 | ... |
| 35 to 36.9 gravity | 1.15 | ... |
| 37 to 38.9 gravity | 1.35 | ... |
| 39 to 40.9 gravity | 1.55 | ... |
| 41 gravity and above | 1.75 | ... |

### GULF COAST

| | | |
|---|---|---|
| All grades except Grade B at Blue Ridge and Pierce Junction | 1.00 | 1.25 |
| Blue Ridge (Grade B) | .90 | .80 |
| Pierce Junction (Grade B) | .90 | .80 |

### LOUISIANA-ARKANSAS

Caddo

| | | |
|---|---|---|
| 38 and above | 1.25 | 1.25 |
| 35 to 37.9 gravity | 1.15 | 1.15 |
| 32 to 34.9 gravity | 1.10 | 1.10 |
| Below 32 gravity | .75 | .75 |

Smackover

| | | |
|---|---|---|
| Below 24 gravity | .40 | ... |
| 24 to 24.9 gravity | .50 | ... |
| 25 to 25.9 gravity | .60 | ... |
| 26 gravity and above | .75 | ... |

Homer

| | | |
|---|---|---|
| 35 gravity and above | 1.25 | 1.25 |
| 33 to 34.9 gravity | 1.15 | 1.15 |
| 31 to 32.9 gravity | 1.10 | 1.10 |
| Below 31 gravity | .75 | .75 |

Haynesville

| | | |
|---|---|---|
| 33 gravity and above | 1.20 | 1.10 |
| Below 33 gravity | 1.10 | 1.00 |

El Dorado

| | | |
|---|---|---|
| 33 gravity and above | 1.25 | 1.25 |
| Below 33 gravity | 1.10 | 1.00 |

Bull Bayou

| | | |
|---|---|---|
| 38 gravity and above | 1.15 | 1.15 |
| 35 to 37.9 gravity | 1.05 | 1.05 |
| 32 to 34.9 gravity | 1.00 | 1.00 |
| De Soto Crude | 1.25 | 1.25 |
| Crichton | .90 | 1.00 |
| Bellevue | .75 | .75 |
| Jennings | 1.00 | 1.25 |
| Vinton | 1.00 | 1.25 |
| Edgerly crude | 1.00 | 1.25 |

Stephens District
(Atlantic)

| | | |
|---|---|---|
| 28 to 29.9 gravity | .90 | ... |
| 30 gravity and above | 1.00 | ... |

### WYOMING-MONTANA

Wyoming

| | | |
|---|---|---|
| Elk Basin | $1.35 | $1.20 |
| Grass Creek | 1.35 | 1.20 |
| Rock Creek | .90 | .80 |
| Lance Creek | 1.20 | 1.20 |
| Mule Creek | .75 | .60 |
| Big Muddy | .75 | .70 |
| Salt Creek | .90 | .70 |
| Osage | 1.35 | 1.20 |
| Hamilton Dome | 1.35 | .... |
| Pilot Butte | 1.10 | .... |
| Landers | 1.10 | .37½ |
| Torchlight-Greybull | 1.35 | .... |

Montana

| | | |
|---|---|---|
| Sunburst | .70 | .... |
| Cat Creek | 1.35 | 1.20 |

### CALIFORNIA

(Crude Oil Prices at the Well)

Los Angeles and Orange Counties

| | Oct. 20 1923 | Oct. 21 1922 |
|---|---|---|
| 14 to 19.9 gravity | .60 | .60 |
| 20 to 20.9 gravity | .61 | .63 |
| 21 to 21.9 gravity | .62 | .67 |
| 22 to 22.9 gravity | .63 | .73 |
| 23 to 23.9 gravity | .64 | .80 |
| 24 to 24.9 gravity | .65 | .88 |
| 25 to 25.9 gravity | .66 | .96 |
| 26 to 26.9 gravity | .67 | 1.05 |
| 27 to 27.9 gravity | .68 | ... |
| 28 to 28.9 gravity | .69 | ... |
| 29 to 29.9 gravity | .70 | ... |
| 30 to 30.9 gravity | .71 | ... |
| 31 to 31.9 gravity | .72 | ... |
| 32 to 32.9 gravity | .73 | ... |
| 33 to 33.9 gravity | .74 | ... |
| 34 to 34.9 gravity | .75 | ... |
| 35 gravity and above | .76 | 1.85 |

### CANADIAN CRUDE

| | | |
|---|---|---|
| *Petrolia | 2.08 | 2.38 |
| *Oil Springs | 2.15 | 2.45 |

*Plus 52½ cents bounty.

## Refined Prices

Group Three Territory

(In tank car lots, f.o.b. Group Three, Oklahoma, refinery or freight rate adjusted. Prices quoted prevailed at the beginning of the week.)

### Gasoline and Naphtha

| | | |
|---|---|---|
| 48-50 450 end point Naphtha | 6 | 6¼ |
| 50-52 450 end point Naphtha | 6 | 6¼ |
| 56-58 450 end point | 6¼ | 6½ |
| 58-60 437 end point (New Navy) | 6½ | 7 |
| 60-62 400 end point | 8¼ | 8½ |
| 64-66 370-375 end point (export specification) | 9¼ | 9½ |
| 68-70 350-360 end point | 10½ | 10¾ |

### Natural Gasoline

| | | |
|---|---|---|
| Grade A 72-78, not over 437 end point, rec. 90 per cent | 7½ | 8 |
| Grade B 76-82, not over 375 end point, rec. 85 per cent | 7¼ | 7 |
| Grade C 80-88, not over 350 end point, rec. 78 per cent | 7 | 7½ |
| Grade D 88-90, not over 350 end point | 7 | 7½ |

### Motor Natural Gasoline (Blends)

| | | |
|---|---|---|
| Grade 1 58-62, not over 437 end point, rec. 91 per cent | 6½ | 7 |
| Grade 2 58-62, not over 450 end point, rec. 90 per cent | 6½ | 7 |
| Grade 3 64-66, not over 440 end point, rec. 88 per cent | 6¾ | 7¼ |
| Grade 4 66-70, not over 435 end point, rec. 85 per cent | 6¾ | 7¼ |

### Neutral Oils

| | | |
|---|---|---|
| 70 Vis. @ 100, No. 2 | 4¾ | 5¼ |
| 70 Vis. @ 100, Nos. 2½-3 | 4¼ | 4¾ |
| 100 Vis. @ 100, No. 2 | 5¾ | 6 |
| 100 Vis. @ 100, No. 3 | 5¼ | 5¾ |
| 150 Vis. @ 100, No. 4 | 10½ | 10¾ |
| 200 Vis. @ 100, No. 3 | 13¾ | 14¼ |
| 200 Vis. @ 100, No. 4 | 12½ | 13 |
| 200 Vis. @ 100, No. 5 | 12½ | 12¾ |
| 240 Vis. @ 100, Nos. 5 and 6 | 14 | 14½ |
| 280 Vis. @ 100, No. 6 | 15¼ | 13¾ |
| 300 Vis. @ 100, No. 6 | 16¼ | 16½ |

### Cylinder Oils

| | | |
|---|---|---|
| 600 Bright Filtered | 28 | 32 |
| 600 Light Filtered | 16 | 17 |
| 600 Steam Refined, olive green | 6½ | 7 |
| 600 Steam Refined, dark green | 5½ | 6 |

### Burning Oils

| | | |
|---|---|---|
| 41-43 Kerosene A. T. | 3¾ | 4½ |
| 42-43 Kerosene A. T. | 4 | 4¼ |
| 38-40 Lt. Straw Distillate | 2¾ | 3 |
| 45-47 Distillate | 5 | 5½ |
| 46-48 Distillate, 500 end point | 5½ | 6 |

### Wax

| | | |
|---|---|---|
| 124-126 White Crude Scale (lb.) | 2½ | 2⅞ |

### Fuel Oils

| | | |
|---|---|---|
| 32-36 Gas Oil | 2¼ | 2½ |
| 24-26 Fuel Oils | 80 | 85 |
| Buyer's Cars | 77½ | 82½ |

Road Oil (Based on Group Three)

| | | |
|---|---|---|
| 50-60 Asphaltic content | $1.00 | $1.10 |
| 60-70 Asphaltic content | 1.10 | 1.20 |

# *Did You Borrow This Copy of The Oil Weekly?*

If you did that's alright; we urge you to read it each week even if you have to "hi-jack" it, but that isn't necessary, for you can get it put on your desk or the reading table in your home for

**Only $1.00 PER YEAR**

*Less than 2 cents per week*

***Send in the Coupon NOW!***

## THE OIL WEEKLY

P. O. Box 1307 Houston, Texas

Enter my name for one year's subscription to The OIL WEEKLY for which you will find enclosed check for $1, as payment in full.

Name.....

Street and No.....

City and State.....

Please check below branch of industry engaged in:

Producing Executive ◇ Field Man ◇ Pipe Line ◇

(BE SURE TO CHECK CLASSIFICATION, otherwise we will have to hold up entering your subscription until we can get the information from you.) 10-20-23

**IF—**

you paid us what it is worth, you'd be handing us a wad like this.

# Preventing Fires on Producing Oil Wells

## Controlled gas, protected flow pits, drainage and cleanliness are essentials

*By Grady Triplett*

BIG WELLS, having immense gas pressure along with oil, require as much precaution against fire after completion as they do during the drilling and completing period. Where such wells produce into open flow pits the fire hazard is a constant menace and only extreme precaution will prevent fires.

The open flow pit is not considered good practice in the oil industry. But in fields where sand and water are produced along with the oil, methods must be adopted to let as much of these settle out as is possible before pumping oil into stock tanks. In the coastal fields the open pit method of separating oil and sand is the common method. John R. Suman in "Petroleum Production Methods," writes:

"With low gravity, viscous oils and great volumes of sand, nothing has been found to take place of the open-air 'sump,' which is simply an excavation made near the well with teams and scrapers. The sand collects in great piles in these 'sumps,' while the oil separates by gravity and is pumped from the lowest point in the depression."

As the gas from coastal wells is not conserved, it offers a constant target for lightning, as it arises from open flow pits.

Concenrs in the coastal fields now equip open pits with flow boxes, into which a steam line is run, the steam discharging there constantly to counteract the gas, which passes through the top of the box through a flume. These flow pits are protected with high fire walls. Where a well is flowing only limited production into one of these, a fire at the pit can be controlled there, the flow being turned off, while the oil is pumped into stock tanks and water used to cool the fire.

### The Double Flow Pit

The double flow-pit system is frequently used for protecting big wells on the Texas coast. No better example of its worth for fire prevention can be found than by giving a bit of the history of the celebrated Abrams 1 of The Texas Company at West Columbia.

After being brought under control with no little difficulty, two flow pits in opposite directions from the well and each 500 feet from it were constructed. The flow from the well was turned into one of these, from where the oil was pumped into stock tanks. But similar connections existed to the other flow pit, which was built as a safeguard against fire.

While the well was producing at its height the flow pit caught fire from lightning, which ignited the gas, drawing the fire to the pit. It may be well to add that the well previously had been made "fireproof." Concrete had been laid over the connections to prevent a blowcut. Then a dirt mound was placed over this concrete slab.

When the one flow pit caught fire the flow from the well was turned into the other pit. The oil from the burning pit was pumped away from the fire, which shortly burned itself out, with a loss of only a few thousand dollars. Meanwhile the well kept producing and was not damaged.

This practice is still followed by The Texas Company with all big wells. Where it is possible the flow pits are placed 1000 feet from the well, one in each direction. The expense of the double flow pit with all connections is made as a precaution against fire.

For protecting flowing wells of immense output of clean oil the General Petroleum Corporation has constructed brick and concrete vaults over its wells in the California fields. These vaults are constructed where wells are close and the fire hazard is great because of nearby activity.

The vaults are large enough to house the fittings and to allow room for making repairs and adjustments inside. The materials are selected and constructed to leave the well immune from fire, regardless of the blaze that may surround the well.

These devices are of value only for flowing wells and then only on wells that are producing no sand and water, or at least so little of these that there is no prospect of having to clean the well out for a long period. Its chief value, also, is in crowded districts, where other wells are drilling.

Another item in considering this sort of fire protection is its expense. As now used, such vaults are constructed only for wells of big output, the value of the oil produced each day being sufficient to make the expense of the vault an expenditure of good insurance.

These vaults have been used in the Mexican fields, where they were found effective before their introduction into California.

Pumping wells that are making large quantities of sand, water and emulsion sometimes are allowed to produce into open pits, to allow some separation of the sand and water before treating the oil. While this offers some fire hazard, it is not comparable to the flowing of big wells. Pumping can be discontinued and the fire extinguished with water. Where a lease is clean of inflammable debris the loss should be small.

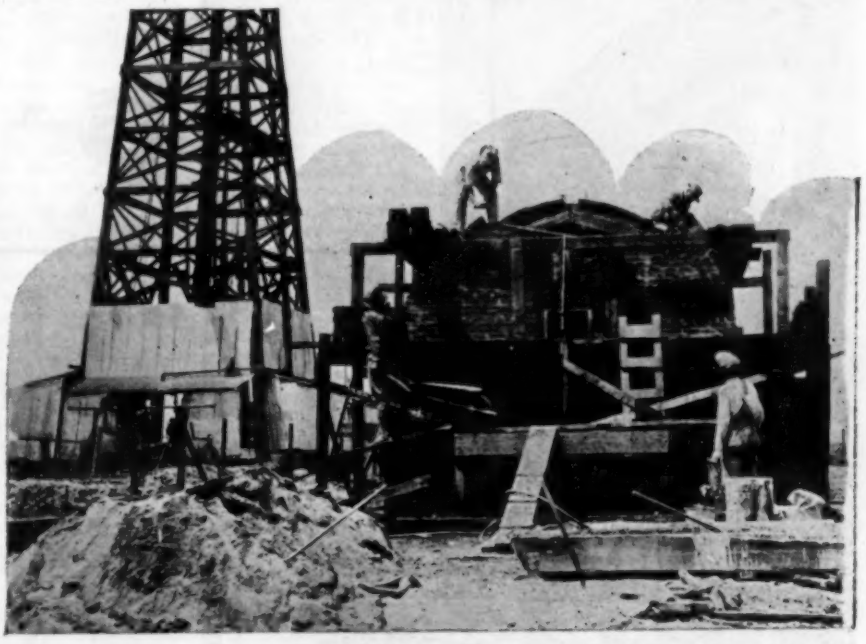
### Where Gas Is Money

In most oil fields gas has a monetary value. So the operators make provision to save it. Consequently the danger of fires from gas is reduced. Various traps and separators are on the market to remove the gas from both flowing and pumping wells, these being provided with outlets, through which the gas can be used for fuel or sold for commercial distribution, or the manufacture of natural gasoline, the dry gas being returned to the lease for fuel or other distribution.

Where there is no market for gas and a surplus for lease use it can be piped from a trap or separator to a safe distance from wells and burned. Producers looking to the elimination of fire hazards see that such gas is consumed or diffused where it will not bring trouble.

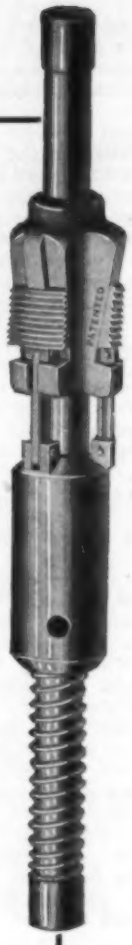
There are sufficient traps and oil and gas separators on the market to permit proper equipment for any well. Many producers devise their own traps from pipe and successfully conserve gas. While the installation of these devices usually is prompted by a desire to save valuable gas, the result is a reduction of chances for fire and to that extent it is fire prevention.

Just as proper drainage and cleanliness are required by the most progressive producers when drilling is begun on a well, it is now being practiced throughout the life of a lease. Mo-



Brick vault being constructed over Santa Fe Springs flowing well of General Petroleum Corporation as fire protection.

# "GUIBERSONS ON ALL STRINGS"



Lease Foreman I. C. Eakin, of the Sinclair organization at Shidler, has GUIBERSON Tubing Catchers on all strings of tubing under his jurisdiction.

Tubing has parted on two of these wells, in recent years, but not a joint of tubing was lost or injured, as the catchers stopped the falls within a few inches.

Ask ANY up-to-date producer if he believes in using tubing catchers. "On all strings"—that is becoming the universal policy.

The Guiberson is fully patented.

**THE GUIBERSON CORPORATION**

Box 1106, Dallas, Texas

CALIFORNIA BRANCH: 1737 E. 7th St., Los Angeles

314 New Daniels Bldg., TULSA | 825 Mason Bldg., HOUSTON | 506 Trust Bldg., NEWARK, O.

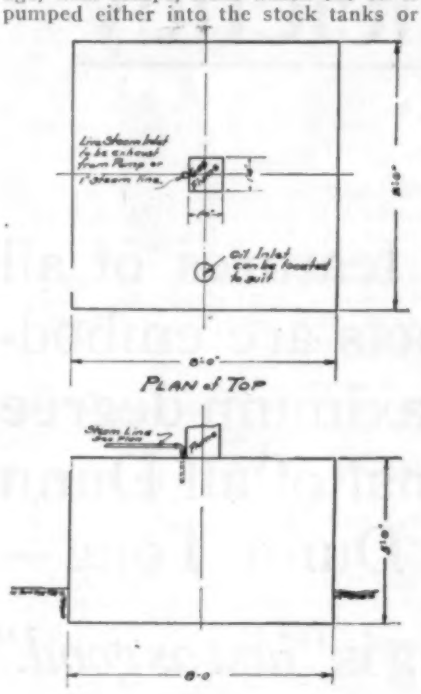
tives behind these may be conservation of oil, but, like the conservation of gas, the result is a reduction of the fire hazard.

The problem of saving oil through lease drainage is one that requires a knowledge of the lease under consideration. But if oil ever is allowed to escape from tanks or flow lines, most of it later can be saved, if a lease is provided with drainage and sumps for catching the oil.

In the coastal fields producers have in the past two years made profitable strides in the salvaging of oil, which formerly remained in holes on the lease, where it was a continuous fire hazard, or allowed to flow away from the properties into rivers and bayous, polluting these streams and later entering the bay waters to kill and drive fish away and render these waters unfit for bathing and other pleasures.

### Collecting Waste Oil

Leases in the coastal fields are now being equipped with systems of drainage, with sumps, from which the oil is pumped either into the stock tanks or


Line Steam Inlet to be exhaust from Pump or Steam line
Oil Inlet can be located to suit
PLAN of TOP
Steam Line
SIDE ELEVATION

Drawings of a flow pit used in the Coastal fields.

into the tanks for treating. No water is allowed to stand on the leases, this being drained away after each rain. Many leases are equipped with a dam to catch oil. This consists of a board inserted to below the surface of a flowing stream, but allowing water to pass below it. Any oil collecting on the water is retained on the surface at this dam. It then can be picked up with the line pumps or with portable pumps and tanks.

The portable pump and tank, mounted on a wagon, is coming to be a part of the lease equipment of the coastal fields. Often a hand pump is installed, similar to those used to drain sewers in a city. With a pump of this type and a small tank, many barrels of oil can be saved on a lease. One concern has reported the gathering of oil valued at more than $1000 with one portable device. This followed a period of rain and flood, where new wells were being completed. The oil came largely from other leases, collecting on the property having the portable oil salvaging outfit.

The dam in the foreground retains oil on a running stream, where it is picked up with a pump.

The saving of this oil proved profitable. At the same time it removed some of the fire danger from the properties.

Such methods of saving what was formerly known as waste oil, are coming largely because of efficient operating methods. It is primarily conservation, with fire prevention a secondary but valuable asset.

Keeping the lease clean seems to be as much a matter of pride as any other element. Regulations of most states call for the keeping of clean properties, but enforcement of this has in the past been negligible. The California fields are held up as models of cleanliness. Within the past two years such changes in cleanliness have come about in the coastal fields of Texas that many properties are now so changed they are unrecognizable.

Cleanliness may be prompted by pride and state officials, but one of its chief values is in fire prevention. As one producer expressed it, "you can prevent many fires on an oil lease just as you can prevent them in a back yard, by having nothing there to burn."

That represents the ideal in a clean lease, one having nothing on it but the necessary equipment for producing the oil. There are concerns which require that the work of cleaning the property be started just as soon as a well has been completed. First all excavations are filled, leaving only those needed for draining the property. Then every timber, every piece of pipe, all cables and every other bit of equipment, whether good for further use or discarded is removed. The discarded material is put back for sale as junk.

The value of a lease thus cleaned in the matter of fire is illustrated best in the case of a fire. Fires will happen in oil fields regardless of prevention methods. When they do, the property that presents no obstructions offers the opportunity for quickest work in conquering the blaze.

So far little has been done toward providing fire fighting apparatus for the oil fields. But some concerns are providing equipment and the fact that equipment is valuable for refining plants and for tank farms is evidence that equipment can serve to good advantage in field fires.

The Shell Company has fire fighting units in the California fields, Formite-Firefoam being used. Trucks are equipped with the necessary tanks and kept ready for fires.

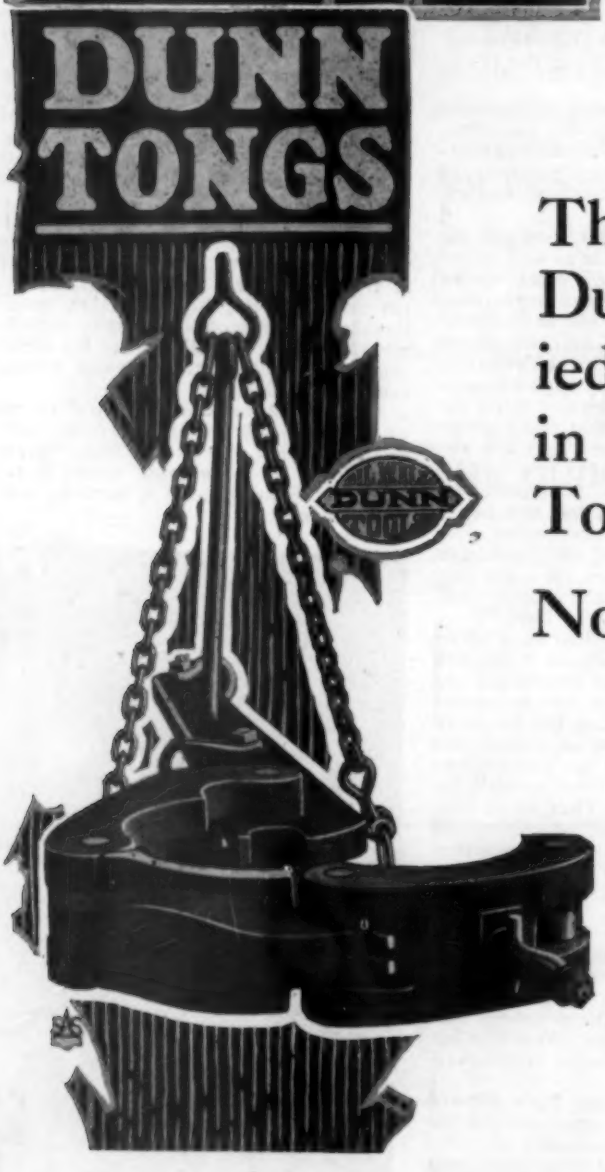
Even where a flowing well can not be extinguished by use of the Formite-Firefoam system, this equipment is of immense value in quenching all ground fires, possible tank fires and countless other blazes that hinder the fighting of the well fire.

So far as is known no effort has been made to provide field equipment for the use of steam. But this seems practical. A truck equipped with shields, asbestos suits, gloves, hose, nozzles, small lines and the scores of other attachments wanted on quick order for fighting a fire could serve to good advantage in any field.

A huge curved shield of steel to set up on one side of a burning well, against which the steam lines might flow from the other side would prove of value in enveloping a burning well with steam.

Tank and well fire in Salt Creek field, Wyoming. The tank, at the right, was extinguished with Foamite-Firefoam portable equipment.

# Safety
# Speed
# Efficiency




These basic features of all Dunn products are embodied in the maximum degree in the original of all Dunn Tools — the Dunn Tong —

No other tong is *"just as good."*

*Carried in stock by*

## The National Supply Companies

# California's Ultimate Recovery Discussed

## Two authorities place final production of state at 3,544,000,000 barrels and tell why

**Los Angeles, Calif., Oct. 13.**—That the ultimate recovery of oil in California will be approximately 3,544,000,000 barrels is the estimate mentioned in a paper prepared by R. E. Collom, formerly supervisor of the oil and gas department of the California State Mining bureau, and R. M. Barnes, and read before the recent meeting of the American Association of Petroleum Geologists in Los Angeles.

A portion of the paper was given over to a full discussion of the matter of petroleum reserves. Future production is estimated at 1,823,000,000 barrels, which, added to production to July 1, 1923, of 1,721,000,000 barrels, gives the estimate for the ultimate recovery. The two authorities place the estimate for ultimate recovery per acre at 33,100 barrels.

The portion of the paper having to do with reserves follows in part:

### Oil Reserves

Data of oil reserves are valuable as an item in the inventory of a nation's or state's natural wealth; to industry, for example, in making broad forecasts of the trend of fuel and power development and probable future economic relationship of petroleum or its products to its natural fuel and power competitors. The data are also useful for comparing the economic importance of one oil producing district with another. The constructive uses of such estimates are limited.

One of the commonest uses to which estimates of oil reserves are put is in predicting how long the supply will last. When the petroleum economist reports that there is a 45 days' supply of gasoline in storage he means that at the going rate of consumption the supply should last 45 days. Similarly for petroleum, when the geologist reports, say, one billion six hundred barrels of oil still recoverable in California, there is also a tendency to interpret this supply as though it were a product stored above ground and say that at an annual rate of consumption of two hundrel million barrels the supply is sufficient to last eight years! Naturally such an interpretation requires a number of qualifying remarks, but it is usually placed before the lay public thus:

"California's Petroleum Reserves Practically Exhausted."
"Remaining Supply Only Sufficient for Eight Years."

Such interpretations do the petroleum industry more harm than good. Supposing the demand for the next eight years were equal to the present computed reserve, it would be a physical impossibility to recover the oil to the last barrel within that time.

It is conceivable that with a resource such as coal, an accurate estimate of reserve tonnage could be made, and further, that if the demand were sufficiently urgent all of the reserve, to the last ton, could be mined in a fixed term of years. In oil fields, however, nature rather than man has formulated the methods of extracting, or perhaps set her limitations upon the processes of expulsion; and, regardless of the urge, man must, to a certain extent, bide his time and let natural laws and oil wells decline in their own way.

### Future Trend

An estimate of oil reserves can be advantageously used in comparing past performance of various fields with future expectations. It shows the shifts in economic predominance from one field or district to another over a long period and gives an idea of the future trend. In a state such as California, where so much oil is used for fuel and yet the refined products, such as gasoline and lubricants, are so important, comparisons of estimates of the quantities recoverable from various oil fields weighted by the quality of crude produced therein give the producer, refiner and marketer some idea of the type of product that will be available ten or fifteen years hence.

A number of estimates have been made at one time and another of the recoverable oil content of California oil fields. Some of the estimates were for proved oil land only, others were for both proved and possible oil land. In one or two instances the inclusion of possible oil land gives such free range to the imagination that the quantities become imponderable and we are engulfed in a fathomless and valueless sea of hypothetical petroleum. Where estimates vary so widely one naturally wonders which will prove to have been closest to the mark when the final statistics of California oil production are recorded. The tendency has been toward conservatism—that is, revision downward. Some estimators in revising their data from time to time maintain practically the same amount for total ultimate recovery and revise the acreage and barrelage factors. Thus a mass of variables and inconsistencies are kept within a convincing exterior, leaving the final determination of the accuracy of details to a postmortem examination by statisticians of the future.

### Subject to Modification

It is evident that estimates of future recovery are subject to continuous

# Would Teach How to Manage Oil Company; Oklahoma University Has Plans for Course

**Norman, Okla., Oct. 15.**—University of Oklahoma has started a pioneering movement in the field of education and technical training and is now making a detailed study of the possibilities of a school for training oil field managers, according to announcement of Dr. J. S. Buchanan, president of the university, Thursday.

Oil is Oklahoma's second most important industry, yet experience of oil men is that there is no school anywhere which attempts to train competent oil field managers. Two members of the board of regents of the university are oil men, C. J. Wrightsman and Frank Buttram. Their suggestions as to the need of training high classed managers for the oil fields led Dr. Buchanan to call a meeting of several oil men and heads of various departments and schools of the university to discuss the possibilities of such training.

Consequently, Friday, October 5, Frank Buttram, Dr. D. W. O'Hern, formerly head of the Oklahoma geological survey; J. H. Felgar, dean of the college of engineering; J. B. Umpleby, head of the department of geology; G. Y. Williams, head of the department of chemistry; H. L. Dodge, head of the department of physics, and Dr. Buchanan met at Norman to officially launch the invetigation preparatory to establishment of such a school.

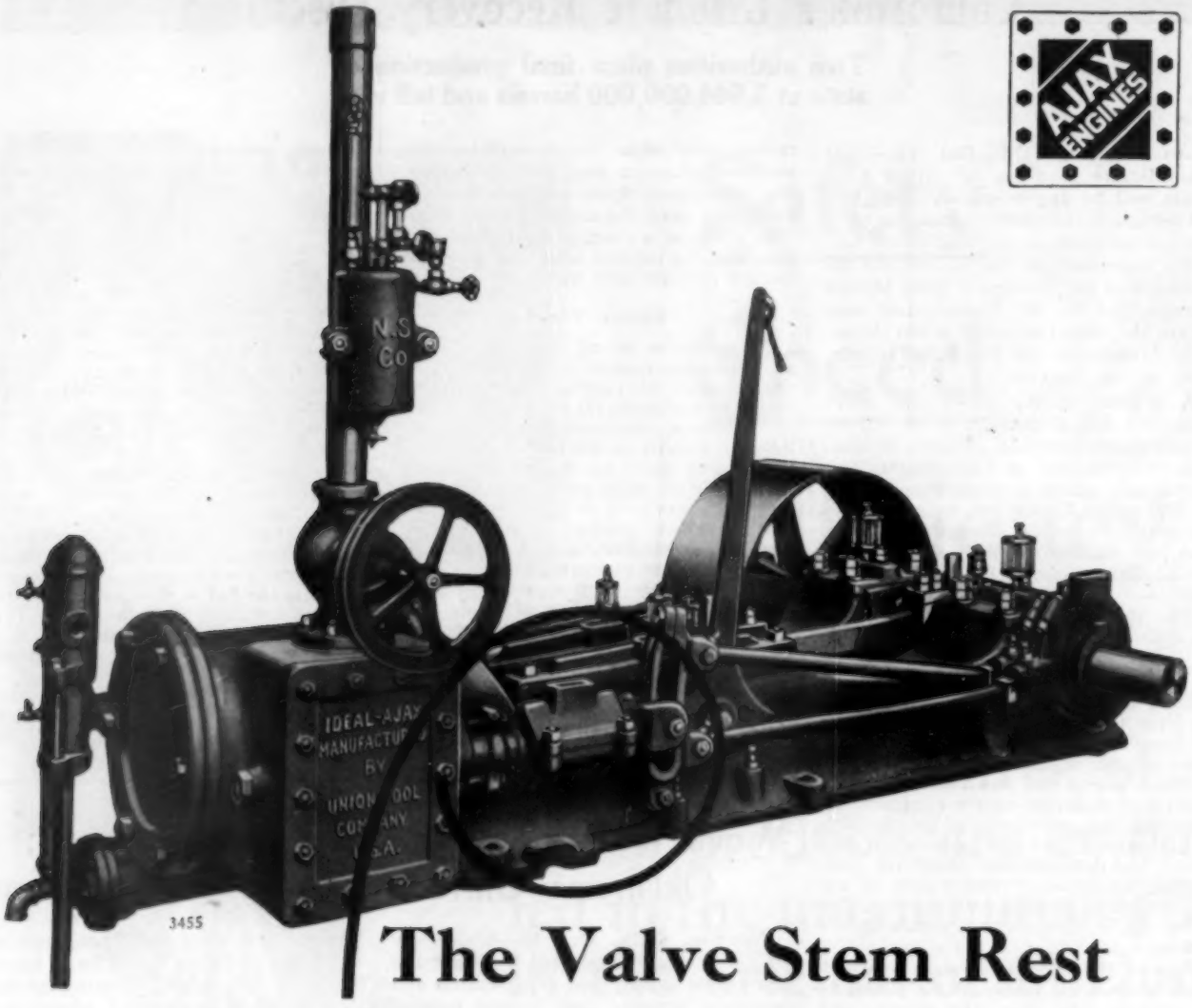
Oil field managers are now drawn from several professions, such as engineering, geology, chemistry, physics, business and from oil field workers who learn the industry from hard knocks, but there is no special training for these men given in any school, investigation brought out.

Such a school would embody work in engineering, mining engineering, physics, chemistry, geology, economics, transportation, accounting; in fact, all lines of study relating to oil field management so co-ordinated that it would lead to training men for the specific work of oil field management, Dr. Buchanan said.

The school for his work would group and combine all the fundamental sciences, business administration, conservation methods, purchasing and distribution in school work and require actual work in the field to apply theory learned in the class room.

The school, yet but a probability, is now outlined to include four years of work and two summers in the field before graduation. In order to get around the objection of the oil men to what they term "college theorists," the co-ordination of the courses needed leading to turning out a technically trained oil field manager will be done by experienced oil field men. The men will have to be drafted from the oil fields to teach in the new school.

If found feasible, and both faculty members and oil men of the state believe it so after first investigation, the new school will probably be launched in the school year 1924-25, or even in the second semester of the present year.




AJAX ENGINES

# The Valve Stem Rest

is an important part of a steam engine. If it should get out of line, or shake, you would have trouble with your valves and get less power.

On the Ajax Engine the valve stem rest is now rigidly bolted to the frame with four bolts instead of two. This has been so accomplished by our improved design that the parts are still interchangeable with engines of the older models.

Distributed by the
**NATIONAL SUPPLY COMPANIES**
in every oil field

Manufactured by the
**AJAX IRON WORKS**
CORRY, PA.

**AJAX DRILLING ENGINES**

Say you saw it in The Oil Weekly

modification, requiring revision upward, due to:

1. Development of new fields.
2. Improved methods of production.
3. More general prevention of waste of gas—hence conservation of expulsive forces.
4. Changes in physical conditions of wells.
5. Possible deeper zones in present producing fields.
6. Improved drilling methods making possible deeper zones available.
7. Increases in proved acreage of developed fields.

And requiring revision downward, due to:

1. Unexpected encroachment of edgewater.
2. More rapid decline of expulsive forces than apparent from records of flush production.
3. Influence of infiltrating water, through failures in water shut-offs or lack of care in drilling, or unexpected appearance in holes where it had been held in check by high pressures of flush production.

The estimates of ultimate recoverable oil in the various oil fields of California made by a committee from the Pacific Coast membership of the American Association of Petroleum Geologists as of July 1, 1921, in co-operation with and for the United States Geological Survey, were based on recovery per acre of proved oil land. The estimated future recovery from 101,935 acres of proved oil land as of July 1, 1921, was set at 1,680,000,000 barrels with an ultimate recovery of 3,095,000,000 barrels, or 30,400 barrels per acre. The writers have attempted to bring these estimates down to July 1, 1923, making such modifications and revisions as the results of recent development seem to require.

The results of development within the two-year period following July 1, 1921, show of how little value the estimates of possible oil land would be when compared with actual results. There is little in California experience prior to July, 1921, upon which, for example, estimates of possible acreage or recovery for the three big fields of the Los Angeles Basin could be predicated.

### Possible Oil Lands

Petroleum geologists and engineers of California seem to be quite unanimous in the opinion that possible oil lands, that is, geologically favorable but as yet undeveloped areas, should not be included in an estimate of reserves. However, there seems to remain an unsatisfied desire to know what would be the total quantity of recoverable oil if the location and capacity of every field within the state, both developed and undeveloped, were known and could be accurately computed. The writers suggest that if the total possible acreage, as geologically determined, were multiplied by the average estimated ultimate recovery per acre for all proved areas that this barrelage for possible oil land, added to the barrelage of recovery for proved oil land, could be advanced as the maximum estimate of ultimate recoverable oil and the minimum estimate may safely be taken as that of the estimated total ultimate for present proved acreage.

For example, the committee's estimate of possible oil land in California as of July 1, 1921, was 42,200 acres. This estimate was made by Van der Leck[1] from data prepared for his bulletin on the oil resources of California. The estimated ultimate recovery per acre for 101,935 acres of proved oil land of the state was 30,400 barrels. Applied to possible oil land this would give an ultimate production of 1,282,880 barrels. Therefore, as suggested above, the maximum estimate of ultimate recovery in the state would have been 4,377,880,000 barrels as of July 1, 1921. The probabilities for error in this maximum estimate are great, however, because of the uncertainty of the acreage factor.

Before giving the few explanatory details of the revisions of the committee's estimte of July 1, 1921, it is interesting to compare the above maximum estimate of four and a third billions with some previous estimate.

### Estimates Prior to July 1, 1921

In 1908, an estimate of the petroleum reserves of the United States was made by the United States Geological Survey, under the direction of David T. Day and published in bulletin No. 394.

As regards California the report says:

"In California very careful measurements by Mr. Arnold have resulted in an estimate of 8,500,000,000 barrels of petroleum stored in the rocks of that state, of which 5,000,000,000 may be expected to be produced."

No analysis is given of the field details for California. However, it seems that possibly half of the minimum quantity may have been expected from the Coalinga oil field, for the U. S. G. S. bulletin No. 398, published in 1910, Arnold gave an estimated recoverable content for Coalinga of 2,000,000,000 barrels for the west side field and 800,000,000 barrels for the east side—a total of 2,800,000,000 barrels. Most recent estimates for Coalinga show an ultimate recovery of about 600,000,000 barrels or less than one-fourth of the estimate of 1908. Possibly the original high estimate was based upon the records of flush productions. At any rate the comparison illustrates, as will some other estimates which follow, the trend toward conservatism in preparing data of oil reserves.

### Total Possible Acreage

In June, 1912, an estimate of petroleum reserves of California was published in a paper reprinted from Transactions of the Commonwealth Club of San Francisco. A survey of the fuel resources of California was made by a committee of which M. L. Requa was chairman. According to the report the data of oil reserves were prepared by Arthur F. L. Bell. The total estimated extractable oil content for 99,200 acres, classed as proved, is given as 4,255,000,000 barrels. In addition, Bell prepared an estimate of possible acreage and estimated the production derived therefrom. The total possible acreage is given as 338,320 acres and the ultimate production is 13,258,000,000 barrels.

As regards acreage the report says:

"It will be noted that Mr. Bell gives a total of possible and proved of 437,-

(Continued on page 60)

[1]Van der Leck, Lawrence, Petroleum Resources of California, Calif. State Mining Bureau, Bull. 89, 1921.

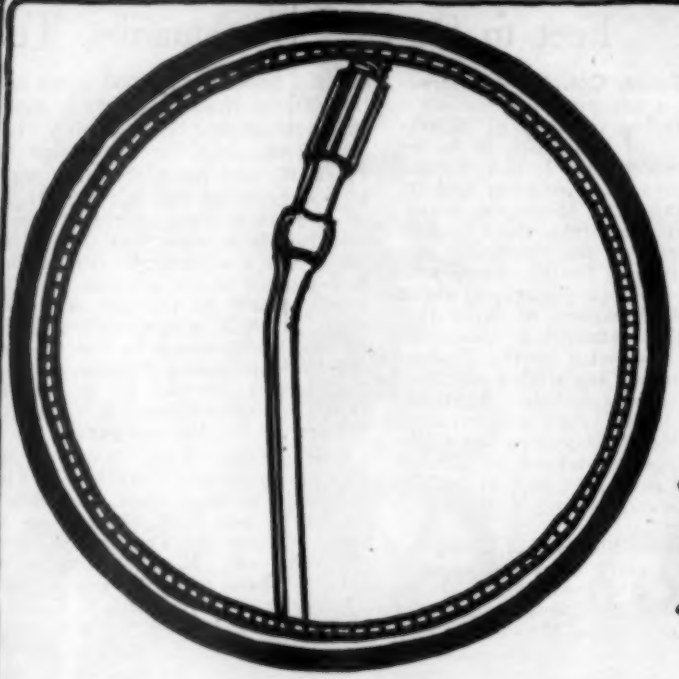
# Gas Line to Handle 30,000,000 Cubic Feet to Be Built to Amarillo, Texas

**Amarillo, Texas, Oct. 16.**—Construction work on a gas pipe line, having a minimum carrying capacity of 30,000,000 cubic feet of gas daily, is to be started before February 1, 1924, by the Mountain States Gas Company and its allied company, the Mountain States Pipe Line Company, from the Lee Bivins ranch section of the Panhandle gas field in Moore and Potter counties to the city of Amarillo, a distance of about 35 miles. Headquarters of these two concerns are maintained at Amarillo, and both are supported by the Producers and Refiners Corporation of Denver and Eastern capitalists. A permit to do business in Texas was recently granted the Mountain States Gas Company, which is capitalized at 250,000 shares of no par value, and under the laws of Delaware, naming T. B. Hoffer as state agent.

The Mountain States Gas Company was organized early last summer after P. & R. acquired approximately 300,000 acres of wildcat and gas proven leases in Potter, Hutchinson, Moore, Oldham, Hartley and Carson counties, including several completed gassers, and the Mountain States Gas Company is to function as the gas producing concern. The larger part of this vast amount of acreage originally purchased by P. & R. is proven for gas in huge quantities, and the potential production if drilled up is inestimable. Included in the lot is a lease for 200,000 acres on the Lee Bivins ranch, extending over the above mentioned six counties. In obtaining the lease on the Bivins ranch, P. & R. and its affiliated companies agreed to build the gas line to Amarillo; start drilling on three new deep tests within 90 days from date of trade, and erect a natural gasoline manufacturing plant on the gas line, if the gasoline contents of the gas warranted a plant. P. & R. is now drilling two tests on the Bivins ranch in Potter County, one in Huitchinson County and a shallow gasser on the R. B. Masterson ranch in Potter County is being carried deeper for the big gas pay.

The officers of the Mountain States Gas Company are: William A. Otis of Colorado Springs, Colo., president; W. L. Kistler and T. B. Hoffer, vice presidents; David R. Thomas of Chicago, secretary; W. E. Lockhart, treasurer. The directors are: William A. Otis, T. B. Hoffer, W. L. and F. E. Kistler, W. E. Lockhart, Charles E. Sutton of Amarillo and F. L. Griffith of Columbus, Ohio.

The gas main to be built from the Bivins ranch to Amarillo is to supply fuel for industrial plants such as glass factories, smelters, etc., and an exceptionally low rate is to be charged for this fuel because of its quantity and closeness to the city.



# The Cost of a Kink

Don't let your Sucker Rods get kinks or sharp bends—for if you do it is going to mean breakage, delays and expense.

We have spent many thousands of dollars in making an exhaustive study of just how Sucker Rods are used by men in the various fields—the results of this investigation are compiled in a book "CONCERNING SUCKER RODS" which we now offer for distribution, FREE. Read and properly digested, this little book will save thousands of dollars for many companies.

**The S. M. Jones Company**

**Toledo, Ohio**

Established 1893

*A copy will be mailed to you on request*

# JONES ACME STEEL SUCKER RODS

# What Research Shows for Long Beach Field

## Some authorities expect peak of output to be reached some time during December

*By A. T. Schwennesen, R. M. Overbeck and H. H. Dubendorf**

The Long Beach field is located at the north city limits of the city of Long Beach in the southern part of the Los Angeles Basin, and about two miles from the coast.

The map of the Los Angeles Basin shows a number of hills which lie along a line striking about north of 42° west. These hills extend from the San Joaquin Hills in the southeast to and including the Cienega Hills on the northwest. Their elevations range from about 60 feet above sea level to 517 feet in the Cienega Hills. Low river valleys or mud filled estuaries lie between the hills. Along this line, about midway between the San Joaquin Hills and the Cienega Hills, rise two domelike hills whose summits lie about one mile apart. The higher of these—Signal Hill—has an elevation of 364 feet; the lower, Reservior Hill, 213 feet. Bordering on the northwest side of Signal Hill is a well marked terrace. These two hills, with the terrace, are the surface expression of the sub-surface structure which is the Long Beach oil field.

### Previous Knowledge of Structure

The existence of the structure at Signal Hill had been known for a good many years, for the dips in the San Pedro formation exposed on the hill indicate a closed anticline. These surface dips indicate that the structure was not very large and that it terminated abruptly in a steep plunge at the northwest end. This was very misleading and led to the belief that the pool ended at what has since been proved to be the center of the productive area and the richest part of the pool.

The question naturally arises, why, if the structure were known, it had not been tested before. There were several good reasons for this. In the first place operators were much less numerous in California three or four years ago. As a consequence, there was not the strong competition that there is today, and wildcatters were less venturesome. A few years ago the operator hesitated to drill except on some positive and visible evidence of the existence of most of the prerequisites for an oil pool, while today we see wells going down wherever there is a topographic suggestion of a fold, or where theoretical considerations indicate that there might be a fold, not to mention wildcats that are being drilled entirely haphazard.

Development along the central uplift was delayed also by incomplete knowledge of the coastal geologic section. Prior to the discovery of the Huntington Beach field, the first field to be discovered in the southern part of the basin, it was not known, for instance, to what extent the Fernando formation, which is the principal oil bearing formation of the older fields of the northern part of the basin, was represented. In the major uplifts, the San Joaquin Hills and the Palos Verdes Hills, the formation is not well exposed in outcrop, and along the central uplift it is entirely marked by the San Pedro formation and recent marine terrace deposits. As a result, many uncertainties existed as to its true character, thickness, the presence of adequate reservoir sands, and the possibilities of the Fernando as an original source of oil. The thickness of the overlying San Pedro formation also being unknown, it was not certain that the oil, if it existed, would be within economical drilling depth.

Previous tests at different points along the central uplifts also tended to discourage further exploration. On Dominguez Hill, near the present Compton field, and on the Cienega Hills near Inglewood, both located on the central uplift and to the northwest of Signal Hill, deep tests had been drilled to over 5000 feet. Furthermore, in 1916 one of the large companies had drilled a well in the northwest part of the Long Beach area near the edge of the present pool, and which was abandoned as a dry hole at a depth of 3449 feet. Although this well was not favorably located with respect to structure it had a tendency to condemn the area. It was not until the Huntington Beach field was discovered in March, 1920, that interest was revived in the possibilities of the coastal uplift.

**LONG BEACH**

**Discovered June 25, 1921.**
**Deepest well in field, 5972 feet.**
**Had produced 57,700,000 barrels to end of August.**
**At end of August 2,600,000 feet of hole had been drilled in the field.**
**Average of one producer to two acres, with many wells drilling.**
**There has been spent in needless drilling about $29,000,000.**
**Writers of paper look for peak of production in December.**

### Geology

**Stratigraphy:** The surface rocks exposed in cuts on Signal Hill are loosely consolidated sand and gravel, and some clay. The deposits are of shallow water marine origin and contain beds with abundant fossil shells, which show them to be San Pedro (Pleistocene) in age. The mineral making up the deposits indicate their derivation from a quartz diorite area which lay probably to the north.

**Structure:** The San Pedro beds in Signal Hill have been steeply folded; some of them dipping as much as thirty-five degrees. Strike and dip readings show further that the domelike shape of Signal Hill is really structural, and that except on the northwest side, it has been but little affected by erosion. The structure as indicated by the surface beds is a fold plunging rather steeply toward the northwest and less steeply toward the southeast. This apparent plunging, however, as will be seen later, is the reverse of the condition found below the surface; but the axes of the surface and subsurface structure in general coincide. Small faults occur in the San Pedro beds along the south side of Signal Hill. The steep south slope of the Hill has been generally thought to be due to faulting, but up to the present time no conclusive evidence has been found to prove the existence of an important fault.

### Subsurface Geology

**Stratigraphy:** The rocks penetrated in drilling are of Pleistocene, Pliocene, and in some wells, possibly of Miocene age. (The generalized geologic column on the screen shows the formations and their approximate thickness.) The formations cannot be sharply separated from one another on evidence furnished by drill cuttings, although fossil shells which are obtained from time to time, have given us the information on which to base their age. The great homogeneity of the marterial encountered, together with the absence of definite marker beds, leaves many gaps in our knowledge of the underground stratigraphy. The difficultv can be appreciated when it is realized that the thickness of the Pliocene beds on the north side of the Los Angeles Basin reached possibly eigh thousand feet.

The first thousand feet of a well consists largely of sand and gravel, which must be cased off to prevent caving. Sea shell are rather abundant in this material, but cuttings show little or no microscopic animal life. These beds are generally called San Pedro, but cannot be separated by any definite line from the underlying Fernando (Pliocene). An unconformity probably separates the San Pedro and Fernando.

Below one thousand feet the beds are more consolidated and consist of sand, sandy shale and shale. For several hundred feet below the base of the San Pedro the shales are normally bluish gray, and below these, brownish gray in color. No sharp line can be drawn, however, based on this color change, and hence the top of the brown shale cannot serve as a definite horizon marker to be used in close correlations. Marine fossils have been obtained from well cuttings which show the age of these beds to be probably Pliocene. The mineralogical composition of the Fernando indicates a source similar to that from which the San Pedro was derived. The general fineness of the sand as compared with that in the San Pedro and the relative abundance of shale points to deposition in water deeper than the San Pedro. The shales are largely organic, and many of them consist of a mass of foraminifera shells. Pieces of carbonized wood are found in many samples; so it is further suggested that deposition took place under estuarine conditions. The Fernando is probably divided into two formations by an unconformity. Its thickness in Signal Hill seems to be at least four thousand feet.

Some of the deepest wells in the field have entered a formation different

(Continued on page 54)

*Read before American Association of Petroleum Geologists, Los Angeles meeting, September 20, 1923.

# Average Daily Production for all U. S. Fields

## Oklahoma

| | This Week | Last Week |
|---|---|---|
| Burbank | 93,030 | 99,905 |
| Tonkawa | 57,890 | 56,500 |
| Bristow | 45,000 | 45,850 |
| Cushing | 24,100 | 24,500 |
| Osage (Outside Burbank) | 23,000 | 23,200 |
| Okmulgee | 22,000 | 22,100 |
| Hewitt | 21,750 | 21,900 |
| Wewoka | 14,000 | 13,500 |
| Healdton | 13,200 | 13,400 |
| Duncan & Walters | 7,000 | 7,100 |
| Other fields | 79,530 | 75,545 |
| Total | 400,500 | 404,500 |

## Kansas

| | | |
|---|---|---|
| Eldorado | 17,500 | 17,700 |
| Greenwood | 13,800 | 13,800 |
| Elbing and Peabody | 11,000 | 11,000 |
| Fox-Bush | 6,500 | 7,000 |
| Florence and Covert | 3,500 | 3,700 |
| Blankenship | 3,900 | 3,700 |
| Augusta and Douglass | 3,600 | 3,600 |
| Leon and Webster | 1,450 | 1,600 |
| Other fields | 10,750 | 9,300 |
| Total | 72,000 | 72,300 |

## Louisiana

| | | |
|---|---|---|
| Haynesville | 23,775 | 24,540 |
| Caddo | 10,840 | 11,125 |
| Homer | 9,525 | 9,710 |
| Bellevue | 7,005 | 5,615 |
| Vinton | 6,050 | 5,900 |
| Bull Bayou | 5,725 | 5,825 |
| Elm Grove | 1,300 | 1,295 |
| Evangeline | 725 | 785 |
| Edgerly | 405 | 400 |
| Anse La Butte | 10 | 65 |
| Total | 65,360 | 65,260 |

## Arkansas

| | | |
|---|---|---|
| Smackover | 100,100 | 100,350 |
| El Dorado | 11,480 | 11,490 |
| El Dorado East Field | 7,440 | 7,570 |
| Stephens | 3,510 | 3,315 |
| Totals | 122,530 | 122,725 |

## California

| | Last Week | Wells producing | Prev. Week |
|---|---|---|---|
| Santa Fe Springs | 274,500 | 222 | 291,150 |
| Long Beach | 256,000 | 266 | 258,650 |
| Huntington Beach | 82,500 | 208 | 93,275 |
| Torrance | 12,400 | 37 | 12,750 |
| Compton | 1,400 | 1 | 1,300 |
| Others | 194,200 | ... | 204,175 |
| Totals | 821,000 | 734 | 850,000 |

## Mexican

The daily average production of crude oil in the Mexican fields follows:

| | Oct. 6 | Sept.29 |
|---|---|---|
| Cerro Azul-Toteco | 54,000 | 56,000 |
| Tierra B.-Chap.-Alamo | 38,000 | 38,000 |
| Central Amatlan | 24,000 | 24,000 |
| Los Naranjos | 9,000 | 8,000 |
| Tepetate-Casiano | 7,000 | 6,000 |
| Petrero del Llano | 6,000 | 6,000 |
| San Geronimo | 4,000 | |
| Chiconcillos | 1,000 | 1,000 |
| Total, light oil | 142,000 | 139,000 |
| Panuco Dist. heavy oil | 225,000 | 254,000 |
| Total for Mexico | 397,000 | 393,000 |

## Okla. Oil Body Announces Changes in State Districts

**Oklahoma City, Okla., Oct. 13.**—The Oklahoma corporation commission has made a change in the territory laid out by the oil and gas division of the department which divides the Tonkawa district by an east-west line and also divides the Tulsa district. H. W. Coe is in charge of the territory embracing the Tonkawa, Garber and Billings fields and C. L. Roff in charge of the Dilworth, Deer Creek and Blackwell territory.

Frank Allen is in charge of the territory including Payne and Noble counties and a part of Creek County with headquarters at Stillwater. J. J. Guoy of Tulsa continues in charge of the Tulsa district that includes the Bristow field.

## Texas

### NORTH CENTRAL TEXAS

| | This Week | Last Week |
|---|---|---|
| Corsicana-Powell | 207,000 | 187,645 |
| Mexia | 44,175 | 43,345 |
| Burkburnett | 24,190 | 24,650 |
| Electra | 22,650 | 24,550 |
| Stephens County | 21,355 | 20,160 |
| Archer County-Holliday | 19,410 | 18,360 |
| Ranger-Eastland | 7,985 | 7,875 |
| Desdemona-Gorman-Pioneer | 6,130 | 6,035 |
| Young County | 4,765 | 5,285 |
| Currie | 3,710 | 3,815 |
| Moran-Shackelford County | 4,225 | 4,290 |
| Kemp-Munger-Allen | 1,205 | 1,435 |
| Iowa Park | 830 | 820 |
| Mitchell County | 800 | 795 |
| Strawn-Palo Pinto County | 650 | 675 |
| Brown County | 565 | 585 |
| Petrolia-Clay County | 465 | 425 |
| Coleman County | 145 | 160 |
| Reagan County | 150 | 150 |
| Richland | 150 | 150 |
| Thrall-Williamson County | 70 | 75 |
| Jack County | 35 | 30 |
| Totals | 370,660 | 351,310 |

### GULF COAST

| | | |
|---|---|---|
| Hull | 22,000 | 20,100 |
| West Columbia | 14,175 | 14,780 |
| Orange | 14,000 | 15,500 |
| Goose Creek | 13,225 | 13,440 |
| Sour Lake | 5,400 | 5,475 |
| Humble | 5,345 | 6,400 |
| Damon Mound | 2,100 | 2,100 |
| Saratoga | 1,775 | 1,850 |
| Batson | 1,200 | 1,140 |
| Spindle Top | 870 | 925 |
| Blue Ridge | 745 | 850 |
| Pierce Junction | 610 | 570 |
| Barbers Hill | 375 | 400 |
| Nacagdoches | 110 | 110 |
| Big Hill | 100 | 110 |
| Dayton | 65 | 65 |
| Markham | 65 | 110 |
| High Island | 50 | 50 |
| Richmond | 10 | 20 |
| Totals Gulf Coast | 82,220 | 83,995 |
| Totals North Texas | 370,660 | 351,310 |
| Luling (Caldwell County) | 10,000 | 9,425 |
| Mirando | 6,000 | 6,500 |
| Somerset | 3,000 | 3,200 |
| Rockdale-Minerva | 700 | 750 |
| Totals for Texas | 472,580 | 455,180 |

## Condensed U. S. Production for Twelve Months

**(Stated in Barrels)**

**This table is carried each week by The OIL WEEKLY, and shows daily production average for each state or section. Figures for Oklahoma, Kansas, Texas, Louisiana, Arkansas and Mountain States are compiled by The OIL WEEKLY, while estimates for California and Eastern States are furnished by the American Petroleum Insititute.**

| Daily average for month | *Mid-Continent | North Central Texas | Texas Coastal | †Texas Total | Kansas | Okla. | Louisiana | Eastern States | Wyoming-Montana | Calif. | Ark. | U. S. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| August | 726,981 | 217,208 | 105,966 | 323,148 | 89,998 | 419,775 | 97,936 | 120,750 | 83,938 | 375,000 | 28,834 | 1,618,765 |
| September | 716,107 | 207,467 | 107,790 | 314,932 | 89,760 | 418,880 | 101,857 | 114,200 | 80,490 | 387,000 | 33,135 | 1,548,371 |
| October | 714,906 | 200,465 | 115,130 | 316,370 | 90,404 | 424,037 | 97,502 | 116,375 | 86,412 | 423,750 | 34,127 | 1,589,005 |
| November | 711,521 | 199,223 | 114,150 | 388,376 | 91,098 | 421,200 | 93,410 | 116,375 | 106,092 | 450,000 | 77,225 | 1,668,776 |
| December | 692,702 | 170,187 | 111,819 | 242,010 | 87,508 | 435,007 | 86,513 | 114,900 | 108,679 | 484,000 | 107,732 | 1,722,349 |
| January (1923) | 708,372 | 184,885 | 115,628 | 304,790 | 86,720 | 436,767 | 81,205 | 113,500 | 123,254 | 517,500 | 111,920 | 1,770,645 |
| February | 712,007 | 180,364 | 96,984 | 286,493 | 85,298 | 446,345 | 78,068 | 112,500 | 110,328 | 587,500 | 101,346 | 1,805,496 |
| March | 720,287 | 184,582 | 89,873 | 283,355 | 86,012 | 449,693 | 75,352 | 109,900 | 118,580 | 653,000 | 108,630 | 1,888,522 |
| April | 756,381 | 192,148 | 92,320 | 293,780 | 86,133 | 478,100 | 76,854 | 424,000 | 127,860 | 711,250 | 102,099 | 1,983,826 |
| May | 793,774 | 203,776 | 90,905 | 304,032 | 85,500 | 504,498 | 75,368 | 109,125 | 125,680 | 700,125 | 109,033 | 2,010,840 |
| June | 824,297 | 217,162 | 92,240 | 320,250 | 85,255 | 521,880 | 72,745 | 110,300 | 129,559 | 773,000 | 133,592 | 2,159,818 |
| July | 866,665 | 274,330 | 91,795 | 378,335 | 84,785 | 508,405 | 70,085 | 113,000 | 137,300 | 851,000 | 132,395 | 2,275,305 |
| August | 826,982 | 278,574 | 94,398 | 393,780 | 82,741 | 464,416 | 68,739 | 112,625 | 137,909 | 866,250 | 123,000 | 2,251,966 |
| Week ending Sept. 1 | 865,008 | 351,195 | 102,680 | 484,175 | 79,395 | 434,418 | 68,885 | 110,000 | 1[illegible],800 | 870,000 | 125,105 | 2,308,778 |
| Week ending Sept. 8 | 844,135 | 337,525 | 87,374 | 425,149 | 78,040 | 428,570 | 69,165 | 108,000 | 156,020 | 863,000 | 124,135 | 2,279,079 |
| Week ending Sept 22 | 817,588 | 329,355 | 86,395 | 453,350 | 76,285 | 411,948 | 68,545 | 107,500 | 160,405 | 848,000 | 131,350 | 2,257,383 |
| Week ending Sept. 29 | 763,270 | 283,160 | 106,140 | 389,300 | 74,410 | 405,700 | 67,540 | 109,000 | 168,220 | 854,500 | 130,145 | 2,198,815 |
| Week ending Oct. 6 | 828,110 | 351,310 | 83,995 | 455,180 | 72,300 | 404,500 | 65,260 | 109,000 | 165,500 | 850,000 | 122,590 | 2,244,330 |
| Week ending Oct.12 | 847,160 | 370,660 | 82,220 | 472,580 | 72,000 | 404,500 | 65,360 | 107,500 | 89,850 | 821,000 | 122,530 | 2,155,320 |

*Includes North-Central Texas, Kansas, Oklahoma.
†Beginning February, 1923, Somerset, Mirando, Rockdale and Luling production included.
NOTE—Mexia production included in North Central Texas.

(Completions for Past Week on Page 40)

# FIELD NOTES AND PRODUCTION STATISTICS

## Torrance Present Menace in California

### New field can easily make 50,000 barrels a day by end of year and might go higher

**Los Angeles, Calif., Oct. 15.**—Torrance is the present menace to the California overproduction situation in that it is within reason that the field will be producing 50,000 barrels of 26 to 27 gravity oil by the end of the year and it is not impossible that the field will be making even more.

The Santa Fe Springs and Huntington Beach fields have reached their production peak beyond a shadow of a doubt, while the peak at Long Beach is not far off.

In fact, there was a small decline at Long Beach the past week in the face of seven completions with a flush production of at least 12,000 barrels. According to these figures, the decline of old wells at Long Beach was approximately 12,000 barrels a day for the field. Certain well informed authorities have predicted the peak at Long Beach for December, but if it should be in November, there would not be very great surprise.

#### Santa Fe Springs

At the close of last week, there were 188 wells drilling at Santa Fe Springs, 124 of which were drilling below 4000 feet. The last named wells should be completed before the end of the year and the number of new ones started in that time will be very small. The field is defined to the south, east and north, but there is a chance of the limits being extended to the west and northwest but this chance is slim and not many expect wells in this area to be large in flush production, if they are producers. There are 42 idle wells in the field, a large percentage of which will be abandoned later. The decline at Santa Fe Springs the past week was net about 16,650 barrels, but seven new wells were completed with a total flush of about 16,000 barrels. This would indicate that old wells declined at the total rate of about 30,000 barrels a day for the week.

#### Activity at Torrance

But to revert back to Torrance.

The activity at Torrance in the area proved by the Midway Northern and the Fortuna wells has become feverish. Derricks are going up too fast for the scouts to keep track of. There are now about 90 derricks in the field, including the outpost holes, which are yet called wildcats. Of this total it is said that 75 of the derricks are in the territory immediately surrounding the Midway Northern and Fortuna wells and outpost wells, with rigs as thick as fleas on a dog's back immediately around the Midway Northern producer. Practically all of the derricks are over drilling wells.

About one mile to the east of the Midway Northern well the Standard's Dominquez well has located an oil sand at 3398 feet and 10-inch is being set for a test. This may be a "first" sand or it may be the same sand found higher up. The pay at the Midway Northern is found around 3700 feet, the same being true for the Fortuna.

One mile east of the Standard test,

#### CALIFORNIA FIELD OPERATIONS

The following table from statistics compiled by State Oil and Gas Supervisor R. E. Collom for California for the past several weeks gives a true insight into field activities:

| Week ending— | New wells started | Water shutoff tests | Deepening jobs | No. wells aband. |
|---|---|---|---|---|
| March 31 | 30 | .. | .. | .. |
| April 7 | 36 | .. | .. | .. |
| April 14 | 25 | 37 | 19 | 14 |
| April 21 | 33 | 47 | 13 | 5 |
| April 28 | 22 | 38 | 16 | 10 |
| May 5 | 32 | 46 | 9 | 9 |
| May 12 | 31 | 53 | 7 | 6 |
| May 19 | 26 | 35 | 10 | 5 |
| May 26 | 29 | 47 | 10 | 7 |
| June 2 | 16 | 25 | 19 | 5 |
| June 9 | 36 | 48 | 7 | 4 |
| June 16 | 15 | 45 | 9 | 2 |
| June 23 | 24 | 36 | 13 | 6 |
| June 30 | 29 | 41 | 11 | 5 |
| July 7 | 20 | 37 | 15 | 2 |
| July 14 | 22 | 36 | 16 | 14 |
| July 21 | 22 | 29 | 7 | 1 |
| July 28 | 30 | 43 | 8 | 6 |
| August 4 | 24 | 36 | 15 | 4 |
| August 11 | 21 | 32 | 9 | 7 |
| August 18 | 25 | 34 | 8 | 9 |
| August 25 | 26 | 39 | 9 | 6 |
| September 1 | 19 | 35 | 7 | 3 |
| September 8 | 18 | 39 | 7 | 3 |
| September 15 | 24 | 39 | 8 | 7 |
| September 22 | 28 | 38 | 7 | 14 |
| September 29 | 33 | 43 | 10 | 9 |
| October 6 | 24 | 28 | 10 | 9 |

## Imports of Petroleum at Principal United States Ports

The following figures represent the total imports of crude oil for the month with the current month given by weeks:

| | Atlantic Ports | | | | | | Gulf Coast Ports | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baltimore | Boston | New York | Philadelphia | Others | Total | Galveston | N. Orleans Baton Rge. | Port Arthur Sabine Pass | Tampa | Total | Total at all Ports |
| August | 717,000 | 728,745 | 2,264,000 | 661,866 | 1,291,000 | 5,662,611 | 987,000 | 861,190 | 1,594,000 | 157,000 | 3,599,190 | 9,261,801 |
| September | 774,000 | 739,814 | 2,551,701 | 657,964 | 845,201 | 5,237,680 | 1,099,000 | 1,159,531 | 748,000 | 150,000 | 2,956,531 | 8,194,211 |
| October | 616,769 | 555,803 | 1,339,150 | 524,558 | 870,020 | 3,907,066 | 1,159,000 | 1,008,440 | 1,614,000 | 99,000 | 3,880,440 | 7,787,506 |
| November | 692,000 | 472,465 | 1,933,263 | 728,490 | 849,428 | 4,676,527 | 1,305,000 | 889,751 | 1,046,000 | 74,000 | 3,314,751 | 7,991,278 |
| December | 774,825 | 693,120 | 2,606,130 | 713,565 | 1,901,498 | 5,874,917 | 1,530,000 | 847,241 | 828,000 | 80,000 | 3,285,241 | 9,160,158 |
| January | 475,000 | 745,115 | 1,636,020 | 641,006 | 1,163,120 | 4,760,155 | 1,053,000 | 735,284 | 1,182,654 | 40,000 | 3,011,953 | 7,772,108 |
| February | 421,000 | 553,510 | 1,163,971 | 570,129 | 1,150,819 | 3,859,429 | 1,079,000 | 951,818 | 1,019,000 | 167,000 | 3,216,818 | 7,076,247 |
| March | 265,000 | 450,000 | 2,020,139 | 848,000 | 1,406,577 | 5,045,924 | 1,857,000 | 1,611,794 | 1,453,000 | 240,000 | 5,162,794 | 10,208,718 |
| April | 370,000 | 669,000 | 1,074,000 | 625,000 | 591,000 | 3,319,000 | 1,615,000 | 1,020,000 | 1,135,000 | 168,000 | 4,362,500 | 7,681,500 |
| May | 344,000 | 515,000 | 1,026,000 | 437,000 | 615,000 | 2,937,000 | 1,351,000 | 910,000 | 1,194,000 | 127,000 | 3,582,000 | 6,519,000 |
| June | 314,000 | 421,000 | 1,791,000 | 755,000 | 809,000 | 4,090,000 | 1,515,000 | 1,142,000 | 1,062,000 | 229,000 | 3,948,000 | 8,038,000 |
| July | 287,000 | 465,000 | 1,806,000 | 448,000 | 898,000 | 3,876,000 | 1,471,000 | 1,120,000 | 833,000 | 92,000 | 3,516,000 | 7,392,000 |
| September | 268,000 | 565,000 | 1,744,000 | 660,000 | 686,000 | 3,923,000 | 1,776,000 | 1,397,000 | 880,000 | 224,000 | 4,277,000 | 8,202,000 |
| October 6 | 112,000 | 41,000 | 286,000 | 232,000 | 400,000 | 1,071,000 | 208,000 | 268,000 | 134,000 | ..... | 610,000 | 1,681,000 |

NOTE—Figures by American Petroleum Institute.

## Receipts of California Oil at Atlantic Coast Ports

The following figures show the receipts of California oil at Atlantic Coast ports by months with the current month given by weeks:

| | Atlantic Ports | | | | | | Gulf Coast Ports | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Baltimore | Boston | New York | Philadelphia | Others | Total | Galveston | N. Orleans Baton Rge. | Port Arthur Sabine Pass | Tampa | Total | Total at all Ports |
| March | 442,000 | 184,000 | 1,355,000 | 496,000 | 615,000 | 2,691,000 | ..... | ..... | ..... | ..... | ..... | 2,691,000 |
| April | 105,000 | 256,000 | 2,456,000 | 502,000 | 320,000 | 3,639,000 | ..... | 478,000 | ..... | ..... | 478,000 | 4,117,000 |
| May | 444,000 | 72,000 | 1,259,000 | 764,000 | 964,000 | 3,553,000 | ..... | 300,000 | 53,000 | ..... | 353,000 | 3,906,000 |
| June | 821,000 | 160,000 | 3,206,000 | 826,000 | 808,000 | 5,821,000 | ..... | 664,000 | ..... | ..... | 664,000 | 6,485,000 |
| July | 443,000 | 75,000 | 2,068,000 | 741,000 | 699,000 | 4,080,000 | ..... | 559,000 | ..... | ..... | 559,000 | 4,639,000 |
| August | 329,000 | 229,000 | 2,956,000 | 836,000 | 683,000 | 5,033,000 | ..... | 970,000 | 70,000 | ..... | 1,040,000 | 6,073,000 |
| September | 1,028,000 | 237,000 | 2,581,000 | 621,000 | 443,000 | 4,910,000 | ..... | 703,000 | ..... | ..... | 703,000 | 5,613,000 |
| October 6 | 248,000 | ..... | 420,000 | 248,000 | 215,000 | 1,131,000 | ..... | 243,000 | ..... | ..... | 243,000 | 1,374,000 |

NOTE—Figures by American Petroleum Institute.

# Second Producer at Stratton Ridge Pumping 200 Barrels at 4360 Feet

**Houston, Texas, Oct. 17.**—Another well, the second oil producer for the field, is now pumping 200 barrels daily at Stratton Ridge, in Brazoria County. The well, Dannenbaum-Tolar, 10, was drilled by the Freeport Sulphur Company. It is pumping oil of 29 gravity Baume, the light oil of the Gulf Coast, from a total depth of 4360 feet.

Both in depth and in quality of the oil, this second well is identical with the first oil well drilled in the field. This well, Dannenbaum-Tolar 9, was completed by the Freeport Company in May, 1922, for 1500 barrels. It flowed with the bailer stuck in the hole just above the derrick floor. This first well was 4368 feet deep and the oil was 29.9 degrees Baume.

Efforts to find an oil deposit at the Stratton Ridge dome date back to 1906. Since that time more than 30 wells have been drilled by almost a score of concerns and individuals. For persistence in seeking for oil at Stratton Ridge Jake Dannenbaum gets first call. He became interested in 1906, following the finding of gas in a water well drilled nearby. Since then he has worked ceaselessly. He has been responsible for most of the tests drilled, through contracts and dealings with the companies and individuals that prospect in the coastal area.

Dannenbaum and H. L. Tolar own the title to some of the lands at Stratton Ridge, as well as many acres of leases. Dannenbaum financed the drilling of two wells in 1913. Through these the gyp rock was found and the facts of the dome established.

The Freeport Sulphur Company began its drilling campaign in 1918. Oil showings were encountered in six of the ten wells drilled by this concern. Some of the holes were lost, but findings in the holes drilled caused the campaign to be carried on. The deep drilling necessary to reach the present pay depth is largely the cause for the loss of the holes.

Although leases at Stratton Ridge have changed hands frequently and shown wide fluctuations in value, the acreage is still held by some of the leading companies.

the Shell's Keystone has started drilling and has already set 15-inch at about 1300 feet. One mile and a half east of the Shell well, the Keystone Syndicate test is drilling below 3000 feet and in another two to three weeks should have the pay, if it extends that far. The three wells mentioned will thoroughly test to the east for three and a half miles.

### To the Northeast

What is known as the Peterson-Barker test slightly more than a mile to the northeast from the old Torrance proven area has developed water trouble after finding the pay at 3890 feet and drilling to 4140 feet. The liner is being pulled and after a recementing job, another test will be made.

It is doubted if the territory within the city limits of Torrance is oil bearing, but to the south and east much of the land is held in fairly small tracts and another intensive drilling campaign can be expected—or rather it is now under way.

There is still the chance that another pay sand will be found between 4000 and 5000 feet in the Torrance section. If this should prove true, another Santa Fe Springs or Long Beach might be forthcoming. The present pay depth is furnishing wells with a flow ranging from 1500 to 2000 barrels of 26 to 27 gravity oil. But what is below that is to be discovered. And then some of the outpost wells might come in with greater flush than those already drilled.

Well informed authorities feel that the production in Southern California will continue to decline, but not to the extent it would have, had not Torrance come to the limelight.

The most SIMPLE, RAPID, THOROUGH, ECONOMICAL method for treating cut oil and tank bottoms.

Tret-O-lite

(Reg. U. S. Pat. Office)

Ask for our new book giving all the facts.

WM. S. BARNICKEL & CO.
ST. LOUIS, MO.

FOR SALE

One Jarecki Pipe Machine. Capacity 2½ to 12½" inclusive. In good condition and equipped with dies for all sizes of pipe.

15,000 feet 4-inch Used Line Pipe
15,000 feet 6-inch Used Line Pipe
25,000 feet 8-inch Used Line Pipe

For immediate shipment from our Texas yards.

KEYSTONE PIPE & SUPPLY COMPANY
314-315 W. T. Waggoner Bldg., Phone Lamar 3640, FORT WORTH, TEXAS
Branch Stores: Wichita Falls, Graham, Breckenridge

## California Crude Cut From 2 to 28 Cents

**Los Angeles, Calif., Oct. 13.**—Effective October 9, the Standard Oil Company of California reduced the price of crude oil in the state from 2 to 28 cents a barrel, making the first cut of 2 cents in 22 gravity to 63 cents and 28 cents in 35 gravity and above to 76 cents a barrel. Crude ranging from 14 to 21 gravity remains unchanged, thus leaving undisturbed the heavy oil in the old fields.

The announcement of the cut said: "The reduction in price is due to the continued overproduction of oil in Southern California, the bringing in of new production, notably in the Torrance field, and a seasonal diminution in the consumption of petroleum products. The last reduction of the company's offered prices for crude oil was on August 1. Since that date there have been two reductions in the price of gasoline."

At this time the average gravity of crude produced in the state is 26, and this grade under the new price is 67 cents. In 1913 oil of this gravity was listed at 75 cents, it dropped to 70 cents in January, 1914, and during that year dropped to 52½ cents. The upturn started late in 1915, and continued a steady climb until it reached $2.05 in July, 1920. This price held until May, 1921, when it dropped to $1.80 a barrel. In August of that year it was reduced to $1.55 and was cut again in July, 1922, when two cuts were announced in the same month. Cuts were announced in January, April and August, 1923. The cut in April did not apply to the old fields and their heavy oil. No changes have been made in oil ranging from 14 to 19 gravity July 25, 1922.

## Los Angeles Shipments to Eastern Ports Decreasing

**Los Angeles, Calif., Oct. 13.**—For the week ending Friday, 40 tankers departed from Los Angeles harbor, carrying 2,578,408 barrels of crude oil, 118,296 barrels of fuel and 154,105 barrels of gasoline. Three cargoes of gas went to Portland, China points and London. The two cargoes of fuel went to foreign ports.

Eleven tankers moved to Eastern ports, while 23 went to Pacific Ocean points and six to foreign. West Coast ports drew 1,549,251 barrels of crude. To Atlantic ports only 864,014 barrels of crude moved. Foreign tankers carried 165,143 barrels of crude.

Shipments this week slightly exceeded the previous week, although Atlantic point shipments were off.

**New York, N. Y., Oct. 15.**—J. W. Cunningham has been elected vice president and general manager of the Mexico Oil Corporation and A. B. Bielaski a director of the company.

# Davis Raises Warning Finger Against Revival of Rush to Drill New Wells

**Tulsa, Okla., Oct. 16.**—In a statement issued here October 12, William N. Davis of Bartlesville, president of the Mid-Continent Oil and Gas Association, made a plea for oil producers to hesitate in beginning a revival of intense drilling. Such, he said, has been indicated, because of an impression that peak production of the California fields has been passed.

He pointed out that the peak of production may have been passed in California, as well as east of the Rocky Mountains, but that the decline so far is too small to warrant any hope for a sudden betterment of the price situation on crude oil.

His statement follows:

"Are the oil producers of the Mid-Continent field about to plunge that branch of the industry into greater demoralization than already exists by premature resumption of activity? This would seem incredible in the light of the lessons which should have been learned from the similar mistakes of the past three years, but there are many indications that this is likely to occur. The announcement, disputed by some, that California has passed its peak of potential production, seems to have created a general impression that all troubles of the industry are behind us. Such a belief is without any justification in the facts.

"In the first place, the widely heralded decline in California from a peak said to have been passed in July was at most a loss of estimated potential production which may or may not have existed. It was stated a month ago that the state's production was well advanced in a rapid decline and that 100 per cent of production was being run, but since that time the decline in actual production in California has been only from 863,000 barrels to 834,000 barrels per day—approximately 3 per cent—and it is the opinion of not a few well qualified men, after careful analysis of the situation, that completion of wells now drilling will create a new and higher peak between now and the end of the year.

"The pools responsible for California's great production are approaching the point of being drilled up and thereafter must, of course, decline. The permanent decline may have already set in, but it must take on far greater proportion than 3 per cent before the producer of the Mid-Continent field can take any comfort from it or find any justification for optimism. In the meantime it should not be forgotten that other California pools already opened up are in course of development, and that wildcatting continues. Under such circumstances who can prophesy, with any assurance, California's future production?

"As to the rest of the country, production from fields east of the Rocky Mountains—that is, excluding California—reached its maximum of 1,425,000 barrels about the end of July. The latest figures show it to be 1,352,000 barrels, reflecting a decline of only 73,000 barrels a day, or approximately 5 per cent, although the most drastic proration has been in force. Additions to stocks of crude east of the Rockies were 6,675,000 barrels in July and 6,050,000 barrels in August. September figures are not yet available, but estimating them at 6,275,000 barrels we have a total of 19,000,000 barrels for the three months, or an excess production of over 200,000 barrels per day during the period of greatest consumption of the year. We are now entering the period of reduced consumption and the excess will be largely increased except as production declines. Obviously, there must be a decline of 250,000 to 300,000 barrels per day east of the Rocky Mountains if the industry is to escape the effect of large additions between now and next May or June, to the already excessive and burdensome stocks of crude on hand.

"I do not wish to be misunderstood. I am not charging the demoralization of the entire oil industry to over-production of crude—on the contrary, overproduction of gasoline was the immediate and principal cause of the chaos which began last spring and has continued to increase ever since. Stocks of gasoline have been and are still so excessive as to have utterly demoralized the markets. We are entering the dull season with more than one billion gallons in storage—at least 50 per cent too much for this time of the year. In spite of the excessive stocks which have existed for a year or more, and the utter demoralization in which the marketing end of the business has been enveloped since the late spring, the refiners of the United States, in August, produced approximately 100,000,000 gallons more this year than in the same month last year, thus absorbing practically all of a similar increase in consumption over the same month last year. The month of August is typical of the activities of the refining branch of the industry throughout the preceding months, and it has thus continued in force the full effect of the burdensome and demoralizing stocks on hand during the only period of the year when they might have hoped to have reduced them. There is but one remedy for such a situation and it is a drastic reduction in refinery runs of crude until the stocks of gasoline on hand have been reduced to reasonable figures, with the resultant effect in increased accumulation of crude stocks.

"In the face of the facts above outlined the conclusion is inescapable that there should be a further reduction in drilling activities throughout the districts east of the Rocky Mountain as well as in California, and yet the trade journals and daily newspapers through the oil states are carrying optimistic headlines and articles which are encouraging the resumption of drilling. The whole oil industry is sick. The producing branch of the industry has been sick for three years. It has been like a patient running a temperature of 105 degrees, who has insisted upon getting up every time there was a drop of one-half degree or even less in his temperature. The natural result has been a series of relapses, and with each relapse the patient has been sicker than before. Let up hope that the producing branch of the industry will be wise enough this time to wait until the temperature has dropped to normal—until they can base their plans for renewed activities upon improved conditions which are already here, instead of prophesies of improved conditions which are said to be six or nine months in the future.

"In view of the depressed condition of the industry and uncertainty of the date of recovery, this is a most unfavorable time to contemplate the opening of new pools. It is regrettable that plans heretofore made by governmental agencies to open for exploration the Navajo treaty reservation of New Mexico and Arizona should have culminated in a proposal for a sale of leases on October 15. To produce oil from that new field on the present declining market, thus adding to the demoralization, will, in my opinion, be against the welfare of the Indian owners and violative of the spirit of conservation. This sale should be postponed if possible to do so."

---

**New York, N. Y., Oct. 16.**—That the peak in California production may be reached by the latter part of October is the opinion expressed here by G .Leigh-Jones, president of the Shell Company of California, who declared that he does not look for any change in price even when the peak has been reached, due to the large amount of surplus oil that has been placed on the market.

---

**Charleston, W. Va., Oct. 17.**—The United States Supreme Court has set November 19 as date for rehearing of the gas cases brought by the states of Pennsylvania and Ohio against West Virginia, involving the right of West Virginia to restrict the interstate flow of natural gas.

---

**Washington, D. C., Oct. 13.**—The United States Supreme Court has decided in favor of Island Oil Marketing Corporation in its suit to require the New England Oil Company to pay $921,835 damages for breach of a crude oil marketing contract.

**THE WEEK IN OKLAHOMA BY TABULATION**

| | New Rigs | Locations | Completions | Producers | Gas Wells | Failures | Init. Prod. |
|---|---|---|---|---|---|---|---|
| Ardmore | 13 | .. | 7 | 6 | 1 | .. | 832 |
| Cushing | 13 | 10 | 5 | 3 | .. | 2 | 670 |
| Bristow | .. | .. | .. | .. | .. | .. | ... |
| Duncan | 9 | 5 | 9 | 2 | 2 | 5 | 90 |
| Garber | .. | .. | .. | .. | .. | .. | ... |
| Muskogee | 10 | .. | 1 | 1 | .. | .. | 50 |
| Okmulgee | 44 | 2 | 4 | 1 | 1 | 2 | 25 |
| Osage | 42 | 18 | 13 | 8 | .. | 5 | 987 |
| Tonkawa | 33 | 5 | 9 | 8 | .. | 1 | 3477 |
| Weleetka | 14 | 11 | .. | .. | .. | .. | ... |
| Total | 178 | 73 | 48 | 29 | 4 | 15 | 6131 |
| Last week | 198 | 57 | 58 | 29 | 4 | 25 | 4088 |

# Oil Exports From Mexico for September Show Drop Against Figures for August

**Tampico, Tamps., Oct. 15.** — Petroleum exports from Mexico showed a drop for September against August, 11,283,396 barrels against 13,018,888 barrels.

Several of the concerns accustomed to clearing many cargoes showed losses for September. The Texas Company loaded only 446,021 barrels in this month, while August shipments were 1,083,145.

The Huasteca Petroleum Company, which led in August, was first in September, with a total of 2,437,820 barrels loaded for foreign ports:

Shipments for the two months by companies follow:

| Company— | Sept. | Aug. |
|---|---|---|
| Huasteca | 2,437,820 | 2,738,859 |
| Corona | 2,236,439 | 2,500,084 |
| El Aguila | 1,778,476 | 1,692,134 |
| Transcontinental | 1,690,336 | 1,384,631 |
| East Coast | 646,961 | 931,100 |
| Freeport Mexican | 523,676 | 624,845 |
| Texas Company | 446,021 | 1,083,145 |
| Mexican Gulf | 362,261 | 573,364 |
| International | 314,247 | 367,473 |
| A. G. W. I. | 224,464 | 244,655 |
| Chaddick & Co. | 113,240 | 96,438 |
| Panuco Boston | 107,511 | 107,216 |
| Impero | 96,771 | 144,937 |
| Pierce | 81,130 | 20,829 |
| U. S. Mex | 73,876 | 110,552 |
| Island | 66,947 | ..... |
| Interocean | 52,380 | 52,800 |
| New England | 29,840 | 223,889 |
| Continental Mex | ..... | 121,937 |
| | 11,282,396 | 13,018,888 |

# Secretary Declines to Reopen Case Involving Salt Creek Field Townsite

**Casper, Wyo., Oct. 16.**—By declining to reopen the case of Louis P. Lavoye, relative to cancellation of homestead entry No. 023377 U. S. land office of Douglas, Wyoming, by former Secretary of the Interior Albert B. Fall, the present secretary, Hubert Work, has decided in favor of the Ohio Oil Company, which holds oil rights to the land in question.

The town of Lavoye is involved. Homestead entry on the land, in the Salt Creek field, was finally approved in September, 1921. The lease for oil and gas was first granted to the New York Oil Company, which transferred it to the Ohio Oil Company. Upon gaining the lease this latter company filed a protest with the Department of the Interior on the grounds of prior possession and that the land in question was of little value for agricultural purposes.

Ex-Secretary Fall later canceled the homestead entry. The case was appealed to the present secretary, whose decision has been made through his refusal to reopen the case.

There are parallel instances of future actions of this nature in oil fields that have government lands on them, open to homestead filings.

## Ohio Company Gets Show on Southern Wyoming Structure

**Casper, Wyo., Oct. 16.**—What promises to be a new pool has been discovered by the Ohio Oil Company on the Rex Lake structure, section 26-16-77, Southern Wyoming. The location is 20 miles west of Laramie.

Oil began to rise in the hole from a sand drilled into at 2757 feet. The bailer was later lost through cavings. With the bit seven feet off the bottom Thursday of last week the hole filled up 700 feet. The well also showed gas at this time.

## Section of Sinclair Line Will Be Finished Shortly

**Casper, Wyo., Oct. 15.**—By Christmas the work of laying the section of the Sinclair pipe line between Clayton and Oshkosh, Nebraska, should be finished. This is the opinion of E. A. MacPherson, the contractor in charge of this 250 miles of the new line. Pump stations are not due for completion this early, however.

Work on the other sections of the line is reported progressing rapidly and the whole line will be finished early next year, unless unforeseen delays result.

## Huasteca Gets 50,000-Barrel Well at Cero Azul

**Tampico, Tamps.**—The big well of the week in Mexico was completed by the Huasteca Petroleum Company, Cero Azul No. 34 for 50,000 barrels, total depth 1841 feet, sub sea level 1384 feet. Preparations are being made to flow the well from the field to Tampico through one of the 4-inch lines.

Down in the old Alamo section the Penn Mex drilled deeper on No. 2 Alamo, the output increasing from 3,500 to 10,000 barrels. This is the best well of the district.

## Oklahoma Drilling Report

**Seminole County**

Ossenbeck et al's Davis 1, C SW NE 10-8-7, sw 700 ft will pull liner and run 5-in csg. Ramsey et al's Frantz 1, NEc SW 19-8-8, dr 3227 ft; Wewoka 1, C S L N½ 19-8-8, sd 1594 ft; Wewoka 2, SWc NE 19-8-8, dr 1200 ft. Cain Freeman et al's C. W. Brown 1, SEc NW SW 20-8-8, rig. Magnolia Petroleum Co.'s Jim Bowlegs 1, NWc SE SW 21-8-8, running in tools. Davis Crosby & Sloan's Foster 1, C NW NE SW 28-8-8, r 1400 ft. Amster et al's Foster 1, C SE SE SW 28-8-8, lcn. R. H. Smith's Chas. Foster 1, SWc 28-8-8, spudding 550 ft; Foster 2, SWc SE SW 28-8-8, rig. New England Oil & Production Co.'s Walker 1, SEc SW SE 29-8-8, lcn. Independent Oil Co.'s Walker 1, SEc 29-8-8, sd 3110 ft for storage. W. R. Ramsey's Willis 1, NEc SE NE 31-8-8, sd for fuel. R. H. Smith's T. Walker 1, SEc NE NW 32-8-8, cellar and tmbrs; Long 2, NWc SE NE 32-8-8, dr 1400 ft; Long 3, SWc SE NE 32-8-8, rig; Long 4, NWc NE SE 32-8-8, rig Magnolia Pet. Co.'s Barker 1, SEc NE SE NW 32-8-8, drilling deeper 3175 ft making 60 bbls. R. H. Smith's Foster 2, C E L NE NE 32-8-8, dr 2150 ft. Foster 3, NEc 32-8-8, dr 1420 ft; Foster 4, SWc NE NE 32-8-8, rigged up; Harris 1, SEc NW NE 32-8-8, dr 600 ft; Harris 2, SWc NW NE 32-8-8, rig. Producers & Refiners' Long 1, SEc SW NE 32-8-8, flowing 260 bbls, being deepened 3146 ft; Long 2, NEc SE SW NE 32-8-8, rig. Independent et al's Long 1, NEc SW NE 32-8-8, dr 3180 ft; Long 2, SEc NE SW NE 32-8-8, rig; Long 3, NWc SW NE 32-8-8, rig; Foster 1, NWc NE SW NW 33-8-8, fsh 3004 ft; Foster 2, NEc SW NW 33-8-8, dr 380 ft. R. H. Smith's Foster 2, NEc NW SW NW 33-8-8, fsh 1850 ft; Dunn 1, NEc SE NW SW 33-8-8, setting 10-in at 1400 ft; L. B. Long 2, SWc NW NE SW 33-8-8, cellar; Parker 1, SWc NE NW 33-8-8, spudding. Producers & Refiners' Foster 4, SEc NW NW 33-8-8, dr 1360 ft; Foster 5, NWc 33-8-8, dr 1420 ft; Foster 6, SEc SW NW NW, dr 1920 ft. Magnolia Petroleum Co.'s Parker 1, NWc SE NW 33-8-8, temp. sd 3022 ft. Lewis & Clark's Long 1, NWc SW NE SW 33-8-8, showing gas 2480 ft.


**OIL FIELD SUPPLIES**

PUMPS—Fittings, Valves, Packing, Beltings, Wire Lines, Bull Ropes, Drilling Cables, Boilers and Complete Pumping Equipment

REFINERY TOOLS AND SUPPLIES

Distributors of South Chester Wrought Iron and Steel Casing, Tubing, Rotary Drill and Line Pipe

PETROLEUM SUPPLY COMPANY, New York, N. Y.

Stores: HOUSTON, TEXAS; MEXIA, TEXAS; SMACKOVER, ARKANSAS; EL DORADO, ARKANSAS

Representatives: SHREVEPORT, LA.; HAYNESVILLE, LA.; ORANGE, TEXAS

**Crude Oil Emulsions Successfully Treated**

- by the -

Electrical Dehydration Process

Analysis, Tests, and Estimates Furnished

PETROLEUM RECTIFYING COMPANY OF CALIFORNIA

# When Looking Over an Oil Field

you will find E-Z-BILT Sectional Steel Houses. They solve the building requirements of oil operators. The speed in erecting them, the flexibility of interchangeable units which make up these houses and the high salvage value attracts oil operators. The cost of E-Z-BILT Sectional Steel Houses is LOW—a fixed price before you build. There is no limit to the use of E-Z-BILT Sectional Steel Houses, they fit ALL requirements. Numerous plans and designs of oil field and industrial buildings are available for your inspection. Our engineers will gladly assist you in laying out your building requirements.

*Write for further information on E-Z-BILT Sectional Steel Houses*

## THE BRADEN COMPANY

TULSA OKLAHOMA

TRADE E-Z-BILT MARK

# Braden Built

## SECTIONAL STEEL HOUSES

Say you saw it in The Oil Weekly

# Powell Output Near 300,000 Barrels Daily

## Three big wells extend the field and prove structure at least seven miles in length

**Corsicana, Texas, Oct. 16.**—With production exceeding all available pipe line facilities and soaring close to 235,000 barrels daily, the Corsicana-Powell field broke all previous records early this week in daily output.

Extensions made to the field during the past week indicate that the field has even greater possibilities of establishing a new record for daily output. Shortly after the field was extended about six locations to the southwest by the completion of Tidal Oil Company and Frank Buttram's Crews-Lovett 1 with an initial production of 19,000 barrels during the first 24 hours, the Atlantic Oil Producing Company's W. S. Kellum 1, an offset to the north, was bailed in and gauged 700 barrels during the first hour, and later increased its flow. The most important extension was given the field late Saturday when E. L. Smith Oil Company's R. L. Wheelock 1 carried the outpost of production more than a half mile further to the southwest, across the railroad tracks, and between the two deep dry holes with an initial flow of 320 barrels for the first hour on the gauge from the Woodbine sand pay at 2920-66 feet.

The performance of these three wells on the extreme southwest end of the field has paved the way for scores of new tests, which are being started with a rush. Tidal and Buttram's well on the Crews-Lovett 25-acre lease topped the sand pay at 2913 feet and drilled to 2962 feet. The first three days' pipe line runs from this well aggregated 50,980 barrels, or a daily average of 16,994 barrels. The big offset producer brought in by Atlantic is reported to have entered the pay at 2917 feet and drilled 44 feet in. The outcome of the Smith Oil Company's test on the Wheelock 38-acre lease has been watched with greater interest than any recent test drilled, owing to it being on a line between two dry holes, located only 6300 feet apart. The Smith Company's producer is only about 2500 feet east of a 3300-foot dry hole drilled several years ago by R. L. Wheelock and associates in the Bragg survey.

The congestion experienced by some of the pipe line companies in the field in handling the unusually heavy production, resulting in some earthen storage being pressed into service on the southwest end of the field, is expected to be only temporary. Additional gathering lines are being rushed from new completions to storage tanks located in the field, while the Magnolia Petroleum Company is enlarging its pipe line system. Although the Prairie and Sinclair pipe line companies have been confining their runs from the field to Humphreys (Pure) Oil Company's production, the former connected up with some of Tidal Oil Company and Frank Buttram's wells last week, and began running the oil.

After having passed the 100,000 barrels mark in daily output in the field, thereby establishing a new record for the United States, the Humble Oil & Refining Company began negotiations with the Sinclair Pipe Line Company for use of the latter's trunk line from Corsicana and Mexia to the coast, but early this week Sinclair officials stated that no decision had been made. Humble's production has taxed the facilities of its two 8-inch lines leading out of the Corsicana-Powell field to the south for some time, while the surplus has been shipped out in tank cars, or diverted to tank farms in the field. Among the large producers scored by Humble during the past week was its L. T. Davis 4, which came in making 567 barrels per hour from pay at 2918-68 feet. This well is on a 73-acre lease containing three other producers and entirely proven for production.

Deeper drilling of the Roxana Petroleum Corporation's W. J. McKie 8-A, located on an outside location and on the northwest side of the structure, increased the flow to about 1200 barrels. This well was reported as a 150 barrel pumper last week at 2916 feet, and has since been drilled to 2936 feet. This well is at one of the widest points in the field.

Extensions made to the field last week prove the structure in an interrupted line due southwest from the discovery well a distance of nearly seven miles, while the widest points range from one-quarter of a mile to 3500 feet. Completion of the Gulf Production Company's J. B. Bush 1, located in southeast corner of 113-acre lease along northwest side of the structure, with an initial flow of 5500 barrels daily at 2874-2945 feet, affords the field its widest point. The distance across the structure from this well to the Thompson producers is about 3500 feet. The large flush production obtained by the Gulf well and other outside wells on the southwest end of the field, indicates that the structure is being proven for production over a wider area as it continues on its course to the southwest.

### CORSICANA PRODUCTION

**Corsicana, Texas, Oct. 17.—The daily average production for the field for the past week was divided as follows:**

| | Barrels |
|---|---|
| Humble Oil & Refining Co. | 82,000 |
| Humphreys Oil Co. | 30,100 |
| Tidal Oil Co. | 26,550 |
| Gulf Production Co. | 15,400 |
| Texas Magnolia | 13,000 |
| Roxana Petroleum Co. | 10,100 |
| Skelly Oil Co. | 5,450 |
| Witherspoon Oil Co. | 5,100 |
| Atlantic Oil Production Co. | 4,300 |
| R. E. Brooks, Jr. | 3,975 |
| McMann Oil Co. | 2,930 |
| Kirby Petroleum Co. | 2,575 |
| E. L. Smith Oil Co. | 2,150 |
| The Sun Co. | 1,550 |
| U. S. Tex Oil Corp. | 1,090 |
| J. K. Hughes Dev. Co. | 940 |
| New Domain Oil Co. | 870 |
| Simms-Tucker | 675 |
| Mitchell & Jones | 575 |
| Cosden Oil & Gas Co. | 325 |
| T. F. Hunter et al | 115 |
| Dick Webster et al | 100 |
| J. K. Hughes Oil Co. | 40 |
| Total | 209,910 |
| Last week | 187,647 |

# Rush at Powell Has Exacted Heavy Toll of Life and Permanent Injury

**Corsicana, Texas, Oct. 16.**—The terrific pace at which operations in the Corsicana-Powell field have been conducted since early last summer when the first heavy production was uncovered by the J. K. Hughes Development Company's ill-fated well on the W. J. McKie farm, which caught fire May 9 resulting in the cremation of 13 workmen, has exacted a toll of casualties far out of proportion to the number experienced during the development of other big fields in the country. The hot month of August and the first half of September proved to be the worst period for accidents, according to several doctors of Corsicana making a special practice of oil field accidents, and approximately 90 per cent of the total accidents were preventable. Smashed hands and feet, fractured skulls and bones, and burns are listed as the principal injuries suffered by oil field workmen by these doctors and local hospitals.

While no accurate statistics are yet available as to the total number of accidents taking place in the field, some idea can be obtained by the daily accident report published by a local newspaper during August when from 15 to 30 separate victims of accidents were listed daily. Although many of the accidents listed resulted in only minor injuries, scores of these victims are maimed for life, having lost a few fingers, or a whole limb, while a few are forced to walk with a limp, or with the aid of a cane the balance of their lives.

The rush for the flush production, which means everything to the operators in this field, is generally conceded to be a contributing factor for the unusual high percentage of accidents, as each extension made to the proven area was followed by dozens of drilling contracts being let and workmen had to be picked at random. This resulted in many inexperienced men finding their way into the ranks of oil field labor, and it has been this class of labor that has met with the most accidents by reason of not knowing how to safeguard themselves while performing their duties. These newcomers are credited with being more careless than the hardened oil field worker, and such often places the latter in a dangerous predicament. Feeling sure of themselves while working up in the derrick, and casting their life belts aside, about ten workmen have lost their foothold and tumbled to the derrick floor during

the past three months. Several of these victims are permanently crippled, having miraculously escaped death, while on one occasion a member of a drilling crew made himself a hero by catching and breaking the fall of a comrade as he fell from the derrick, only to be injured himself, but not seriously.

Falling timbers, boards and tools from the upper part of the derrick are causes of a large percentage of the accidents, and in most all instances this is due to carelessness on the part of some one in not anchoring the object properly. Fractured skulls have been numerous from accidents of this nature, and a few victims are still confined at a local hospital in a serious condition.

Accidents have not been confined entirely to the workmen on drilling wells, as a number of pipe line workers have received first aid treatment due to their own carelessness or on the part of a fellow worker. Then the rush for steel storage to handle the overflow production from the pipe lines has played an important part in boosting the field's accident record. Collapse of interior framework used in the construction of an 80,000 barrel tank caused the instant death of a tank worker on October 8, and serious injuries to three other workmen. Smashed feet and hands have occurred quite frequently among the tank workmen by falling steel plates and the injuries to eyesights caused by flying bits of steel are inestimable, with a few losing entire use of an eye.

## Luling Field Extended Mile to the Southwest

**Luling, Texas, Oct. 16.**—One of the most severe storms in the history of the field swept Caldwell County Saturday doing heavy damage in the Luling field. Several derricks were blown down or damaged and a 2500 barrel earthen storage tank of the Caldwell Oil Company filled with oil was washed out. The oil was a total loss, running off down the stream. A number of oil men and workers were caught in the field by the inundation and had difficult times reaching home.

The material damage will be comparatively small but the delay in work will be considerable as many crews have not yet reached their rigs and some of those living in camps at the rigs could not start work due to mud. The rain will insure planty of water for drilling, however. The San Marcos river and several creeks are out of their banks but there has been no loss of life reported.

The event of the week in this field was an extension of one mile to the pool when the Maggie Moore No. 1 of the Jarmon Oil Company, a wildcat, was completed making 350 barrels in heads. It may do better when put in shape. The "school house well" drilled by Joliet Oil Company is reported making water. The Maggie Moore No. 1 was completed at 2165 feet. It is probable operators will now drill all territory southwest to the San Marcos river as it is believed production can be got there.

The Magnolia's No. 5 Merriwether which threatened to blow itself in and was held down with mud is now said to be making more water than oil and may be carried deeper.

Then United North & South is said to have found the Austin chalk in their No. 1 Manford in Guadalupe County, a wildcat on structure across the line from Caldwell County at 2440 feet.

# Lifting of Buying Restrictions Is Boon to Producers in North Texas

**Wichita Falls, Texas, Oct. 16.**—Lifting of restrictions on crude runs by Humble, Texas and Magnolia pipe line companies last week has materially improved the position of the small operators in the North and Central West Texas district oil fields, as the forced curtailment of production in the old settled fields was proving injurious to wells making water along with oil, and had almost stopped drilling activity in some of the fields. With a market now available for all output of leases, efforts are being made to bring back the production of the wells, and a slight gain in production is anticipated from all the fields. Archer County obtained an early start to this end, and during the past week scored a daily average pipe line run of 19,410 barrels, which is the highest ever recorded for the county. The previous high level for Archer County was during the last week in June, when flush production from the Ferguson pool boosted the output to 18,765 barrels.

A new oil producting area was discovered in Archer County about two miles southeast of the Sunshine pool last week when Barkley-Meadows et al's L. F. Wilson 1 drilled broken oil sand at 1530-34 feet and 1535-38 feet. Oil rose about 400 feet in the hole, and the crew were unable to lower the oil more than 100 feet in the hole when bailing. A standard rig is being erected to complete the well from the broken sand pay. It is located in the southeast corner of block 86, lot 4, W. B. Aldridge league, abstract 2, and has caused a flurry in leasing activity on nearby acreage.

Standing with about 1000 feet of oil in the hole while waiting for better weather conditions, the semi-wildcat test of Stedham & Thrasher on the E. Daume land in lower part of Wichita County, about one and a half miles northwest of Holliday, has attracted considerable interest during the past week, and resulted in a number of leases changing hands at prices ranging from $50 to $75 per acre, with actual purchases being made by Humble Oil and Refining Company, Texhoma Oil and Refining Company, J. J. Perkins, Kentucky Oil Corporation and T. O. Shappel. The near producer is located almost on the Wichita-Archer County line in block 1, abstract 266, and picked up the sand pay at 1824 to 28 feet.

Two small producers were added to Stephens County during the past week, and included Landreth Production Corporation's Moore 1, which started off at a rate of 150 barrels of oil and 4,000,000 cubic feet of gas from gray lime pay at 3450 feet. It is being drilled deeper, and is below the 3585-foot level. Humble Pipe Line Company is running the oil. Corbett and associates' shallow test on the Williams farm in lower end of the county is reported good for 100 barrels from sand at 2200 feet. In Comanche County and in the so-called Desdemona district, Lightfoot et al's Perry 1 is good for 10 barrels daily on the pump from shallow sand at 870-75 feet.

In the Eastland field Robert D. Gordon's first test on the Amis lease encountered gas pay at 3180-96 feet, and is making in excess of 10,000,000 cubic feet of dry gas daily.

## Mirando Well Catches Fire; Superintendent Is Burned

**Mirando City, Tex., Oct. 16.**—Fire in the Aviators No. 1 in Webb County did considerable damage last week. Paul Porter, general field superintendent for the Rio Grande Petroleum Corporation present owners of the property, was on the platform when the well became ignited and was badly burned.

He had just got the well on the pump and it was making 50 barrels of oil. Originally it came in for 35,000,000 cubic feet of gas and sprayed about 20 barrels of oil but as the gas decreased, the oil came in better. It was still furnishing fuel in the field but had been put on the pump for oil production also. The cause of the fire is not known. The well will be smothered out with steam.

Cin-Tex Petroleum Company completed their No. 2 last week for 150 barrels at the usual depth. There are three producing sands with the bottom of the hole 1784 feet. The oil was capped with shale. This well is 1,000 feet east of the escarpment and south of the O'Hearn wells.

The Laurel Company will deepen the No. 2 gasser in the Schott pool to see if they can get the high gravity sand found by the Magnolia. Drilled two years ago for 30,000,000 cubic feet this old gasser has furnished fuel for many wells in the pool but recently pressure has died down to where it was not profitable.

The Cin-Tex is making a workover on their No. 1 too. It is in Block 50. This well is about one year old and has been making 100 barrels a day in a part of the field where wells are making more oil so the company will try to increase production by a workover job.

## Receivership Is Asked of Indiahoma Refining Co.

**St. Louis, Mo., Oct. 15.**—Trustees of the estate of Gustav Wambganz of St. Louis have filed application for a receivership and an accounting in Federal court at Muskogee, Oklahoma, against the Indiahoma Refining Company of St. Louis and Okmulgee, Oklahoma. October 18 has been set as a date for a hearing on the application.

The Indiahoma Refining Company owns and controls considerable producing and refining properties in the Mid-Continent field and has its principal operating offices in St. Louis. The control of the company is vested in the Schock family of St. Louis and Okmulgee.

# Not Much Luck in Taking Ontario Wells to Deeper Depths—But Still They Go Down

**Calgary, Alta., Oct. 15.** — Latest reports from Ontario foreshadow the failure of recent deep drilling tests there. In Lambton County, Eugene Coste Oil & Gas Co. No. 4 Dawn township, is reported drilling at 3,300 feet without a show. This test got the Trenton limestone at 2965 feet, and while the Trenton tests in Dover usually encountered the main production lower in the formation, a producing well was generally foreshadowed by smaller showings in the upper part of the deep lime. In Kent County, the Glennwood Natural Gas Co. deep test on the Hugh Shanks farm, near Port Alma, drilling at 3037 feet, is 326 feet in the Trenton limestone, and also without a show.

Meanwhile, two deep tests are being followed up by other companies, the Union Natural Gas Co. test near Port Alma, drilling at 1,000 feet, and the High Pressure Oil & Gas Co. at Rock Glen, near Arkona, Lambton County, which is still in the upper formations.

In Moore township, Lambton County, Eugene Coste & Co. No. 5 on the Kerr property, started as a shallow venture, has been abandoned after reaching 958 feet without a show.

So far as Western Canada goes, it is now definitely known that Imperial Oil, Ltd., will resume its drilling in the far north next summer. At least one crew, perhaps two, will be sent in when navigation opens. After oil was first struck in the discovery well, below Fort Norman, three additional tests were started. One of these, at C camp, on the opposite side of the Mackenzie from the discovery well and at a considerably lower point on the structure, ran into a crooked hole at 1700 feet; upon which the rig was skidded and a new hole started. D location, on Bear Island, in the middle of the Mackenzie, was higher on the structure than C location, and lower than the discovery. A fourth location, at Blue Fish Creek, near Fort Norman, was tested to 495 feet last season, but no work was done there this year.

As a result of this year's work, the new well at C camp was carried to 3037 feet without a show. At D location, Bear Island, an oil showing was met at 1948 feet, further showing of both oil and gas at 1975 feet, and below this depth salt water in small quantities, the drilling finishing at 2080 feet in the Beavertail limestone. This season also the discovery was deepened to 951 feet, maintaining a daily production between 60 and 70 barrels.

While details of the company's program have not been worked out, the next work will probably be a new test close to the discovery well; though the latter may first be deepened. The discovery well is apparently located at the high point on the structure. The well at Blue Fish Creek may also be deepened.

In Alberta, Many Island Lake district, northeast of Medicine Hat, is becoming the chief center of interest. Community Oil Wells, Ltd. sec. 19-14-1w4 is deepening its test below 2471 feet for oil. Canadian-American Oil & Gas Co., sec. 31-13-1w4, reports a good gas flow at 1350 feet. Many Island Oil & Gas Co. Drazan No. 1 is running casing to 700 feet before drilling deeper. On the Saskatchewan side of the field, the Provincial Oil & Gas Co., of Regina has a location and camp close to the provincial boundary. Imperial Oil, Ltd. recently had a geologist in this field, but his visit was apparently part of a general reconnaissance, and it is understood no test will be located by that company.

In east-central Alberta, reports of oil showings and commercial gas production in Imperial Oil, Ltd., Grattan No. 2, sec. 14-45-8w4 are officially denied. No oil showing has been met, and the gas encountered is not in commercial quantity. The test is held up at 1864 feet owing to some slight casing trouble. British Petroleums, Ltd. No. 2, sec. 30-46-6w4 reports drilling through 17 feet of oil sand to 2036 feet, and may test this sand before going deeper.

The Royalite Oil Co. No. 4, in the Okotoks field, southern Alberta, has a production of 7,000,000 cubic feet of gas per day at 2890 feet but is going deeper for oil. The drill is now at 3,000 feet.

In Sweetgrass district, activity is now limited to the Canadian Oil & Refining Co. (Rogers-Imperial) test on sec. 29-1-11w4, in the east of the field. This test is drilling below 1,400 feet and following the drill very closely with the 12½-inch casing, as a precaution against further caving.

## C. B. Ames Talks on Federal Oil Control

**Tulsa, Okla., Oct. 13.**—Declaring that the only point at which the United States government can touch the oil industry is under the power of congress to regulate interstate commerce, Judge C. B. Ames of New York, general counsel for The Texas Company, spoke on "Government and the Oil Industry" at the annual banquet of the Mid-Continent Oil and Gas Association held here October 10 that followed a business session. Other speakers at the banquet were former United States Senator Thomas P. Gore, Judge J. J. Shea, J. D. Collett, F. M. Witherspoon, W. H. Rector and A. L. Derby. W. C. Franklin acted as toastmaster.

"I am clear in the opinion, however, that neither the state nor the United States has the power to fix the price of crude oil and that even if such power existed its exercise would be unwise and unsound economically," Judge Ames said. He further declared that states can prohibit waste and that in some states the running of oil into earthen storage can be prohibited and the number of wells may be regulated in a certain area and unnecessary drilling can be halted. "The principal trouble today is with the distribution of the products of refineries," he said.

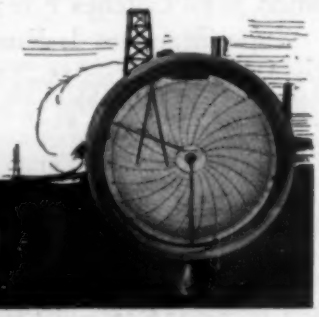
At the business session eight names were added to the executive committee of the Kansas-Oklahoma division of the association. The new members are R. H. Smith of Tulsa, E. B. Reeser, Louis Campbell of Oklahoma City, Frank Buttram of Oklahoma City, George N. Moore of Arkansas City, Kan.; B. A. Simpson of Ardmore and Guy B. Perry of Independence, Kan.

## Dozen Tracts of Oklahoma State Leases to Be Sold

**Oklahoma City, Okla., Oct. 13.**—Twelve tracts of state land in Kay, Lincoln and Pawnee counties in Oklahoma are to be offered for sale November 12 by the commissioners of the land office of the state. Four tracts are near production, four others are near the new Stroud pool and others are in territory where deep drilling is being undertaken.

**Toledo, Ohio, Oct. 15.**—Application has been made to list preferred and common stock of the National Supply Companies on the New York Stock Exchange.

FOXBORO ORIFICE METER
A rugged, accurate Orifice Meter, for measuring Casinghead Gas, Natural Gas, Oil, Steam, Gasoline, Water.
*Write to Dept. N. for Bulletin 113-I*
THE FOXBORO CO., Inc.
Foxboro, Mass., U. S. A.
3070 213 S. Cincinnati Ave., Tulsa, Okla.

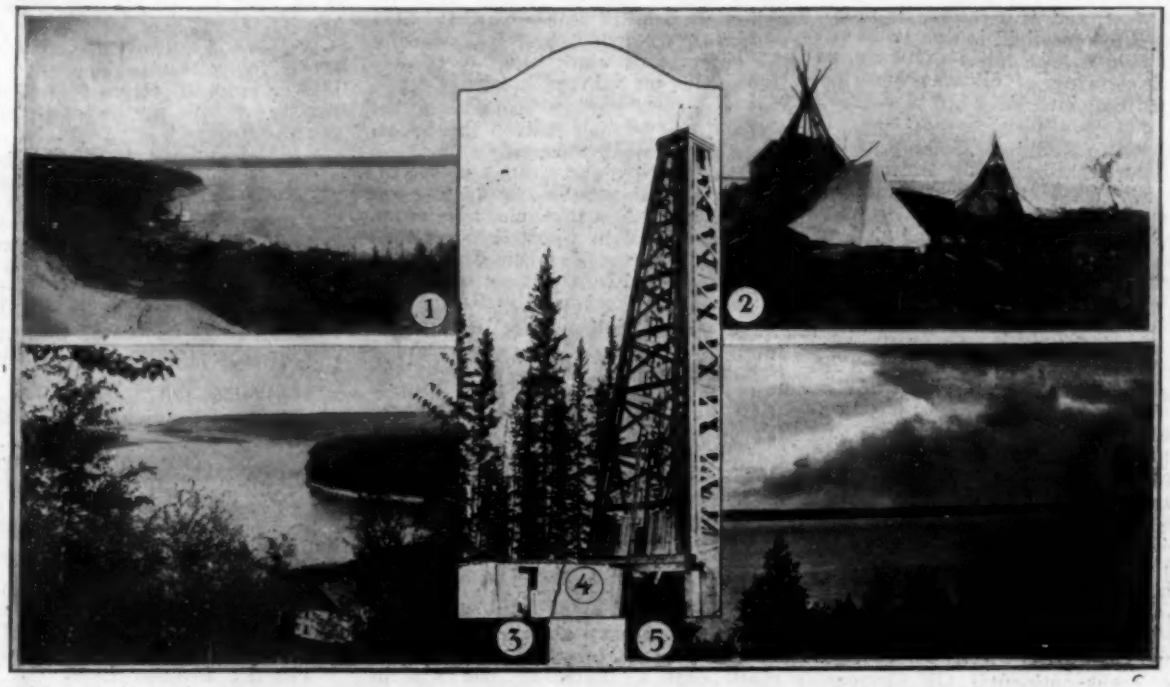


FOXBORO
TRADE MARK
THE COMPASS OF INDUSTRY

"IT'S A WILSON"
THE PINNACLE OF PERFECTION
— IN —
OIL WELL TOOLS
WILSON & WILLARD MFG. CO.
2301 EAST VERNON AVENUE
LOS ANGELES, CALIF.
SPEED! SAFETY!
STRENGTH! EFFICIENCY!

# Pioneering for Oil in the Far North

Showing some of the activities of the Imperial Oil Company's men at the company's camp near Fort Norman in northern Canada. These men have recently been withdrawn from the district, but no official announcement has been made as to whether the company plans to give up the district or not.




View No. 1 shows Fort Smith as it is today. No. 2, tenting on the shores of the Great Slave Lake in Canada. No. 3, Hudson's Bay post at McMurray. No. 4, the derrick at Bear Island. No. 5, cloud effects, result of a fire across the lake from Bear Island.

—Photos Courtesy of the Imperial Oil Review.

# Smackover Extension Draws New Tests; Arkansas Wildcats Demanding Attention

**El Dorado, Ark., Oct. 15.**—Increased activity is evident in the Louann extension to the Smackover field. New wells are being started by the Smith Refining Company, the V. K. F. Drilling Company, the Magnolia Petroleum Company, the Sun Company, Burch & Walker, and others.

Several deep tests are being planned in the Smackover field, among which are included Smitherman & McDonald's No. 3 Saxon, in section 5-16-16, Smith & Nash's No. 1 McElroy, in section 29-15-16, and the Natural Gas & Petroleum Company's No. 1 Primm, in section 1-16-16. The current completions report records the success of the Simms Oil Company's test of the 2600-foot sand in its No. 1 Childs, in section 8-16-16.

The Arkansas-Invincible Oil Corporation is setting eight-inch casing in its No. 2 Wesley, in section 18-15-9, Ouachita County, which will be the fourth test of the Nacatoch sand in the Stephens field. Well-saturated cores were obtained in this well at a somewhat higher level than in either of the previous Nacatoch tests; and this fact together with the excellent showings obtained while drilling into the sa· gives rise to the hope that the shallow sand may yet produce oil in commercial quantities.

The Atlantic Oil Producing Company has passed up the Nacatoch following a core-barrel test of salt water from that horizon in its No. 3 Millner, in section 24-15-20, Columbia County.

The Leeper Syndicate's No. 1 Wesson, in section 23-15-19, Ouachita County, is being tested today at a total depth of 2,182 feet; and, if it fulfills its promise, the Stephens field is due to be extended about three miles eastward, as a good showing of oil was obserbed while drilling into the sand at 2,176-79 feet.

The Gulf Refining Company has drilled the eight-inch plug and is drilling below 2,100 feet in its Dawson C-1, section 10-15-18, Ouachita County, about four miles northeast of the Hunter discovery well. Bray & Hawthorne are drilling at 1,150 feet in their Halford test, in section 13-13-22. Jimmie Cox has tested salt water at 1,960 feet in his No. 2 Burton, in section 30-15-17.

The Dixie Oil Company's No. 1 P. Womack, in section 10-14-21, of the Irma field, in Nevada County is pumping only water.

Smitherman & McDonald's No. 2 Watters, in section 10-14-21, was bailed dry last week at 1,177 feet. Their No. 1 Womack, in the same section, is now pumping about 700 barrels of fluid, of which only about one-fourth is oil. This well is only about six weeks old.

Ames et al have set six-inch casing at 1,142 feet in their No. 4 Watters, in section 11-14-21.

The Transcontinental Oil Company is rigging up its No. 1 Blakeley, a wildcat in section 14-13-20, Nevada County. The Day Trust is drilling at 1765 feet in its No. 1 Westmoreland, in section 10-12-21; and the Prescott Oil Company is drilling below 1,000 feet in its No. 1 Henry, in section 10-12-20.

**Shreveport, La., Oct. 17.—The Higgins Oil and Fuel Company completed a 7000-barrel gusher yesterday on its Murphy lease in the southwest quarter of section 14-16-15 of the Norphlet area. This well is also making ten million cubic feet of gas. Total depth 2012 feet.**

Dowdy et al are arranging to set casing for making a test of a show of oil obtained from a sand at 2190 feet in their No. 1 Fullenwilder in section 12-17-22, Columbia County. Brown and associates are drilling at 2,765 feet in their No. 1 Robinson, in section 23-18-23.

Bondurant et al have tested dry at 2,611 feet in their Clark wildcat, in section 34-17-12, Union County. Garrett et al are rigging up to begin drilling in their Robinson wildcat, in section 33-18-14.

Harris & Bickley are drilling below 800 feet in their No. 1 Freeman-Smith, in section 26-16-13, Calhoun County.

The Dudley Trust has begun operations and is down below 550 feet in its No. 1 Grayson, in section 35-9-18, Clark County.

Martin and others are drilling at 1,600 feet in their No. 1 Adams, in section 36-12-27, Hempstead County. Meyer et al are drilling at 1,500 feet in their No. 1 Nicholls, in section 17-11-25; and Orr and others are drilling at 1,215 feet in their Yates test, in section 19-12-23.

In La Fayette County, the Ken-Saw Petroleum Company is drilling at 2,690 feet in its Red River Valley Lumber Company test, in section 34-19-24.

# Union Parish Failure Does Not Hamper Wildcat Drilling in North Louisiana

**Shreveport, La., Oct. 15.**—Louisiana producers are somewhat downcast over the failure of the Security well, drilled by Love Brothers, in section 12-23-1w, of the Oakland territory, to open a new field as was hoped. However, a showing of live oil was obtained when the well was bailed at 2,240 feet. It was then drilled through the liner into salt water at 2,243 feet. It is reported today that still deeper drilling is contemplated.

The Union Parish Drilling Syndicate's No. 3 fee, in section 17-23-1e, Union Parish, is shut down at 2,154 feet, with six-inch casing set, awaiting the outcome of negotiations to correct lease titles on nearby acreage.

Davidson & Palmer are drilling below 900 feet in their test on the Frost-Johnson Lumber Company's land, in section 18-23-1e; and Collins & Woodley are preparing to resume drilling under the ten-inch in their No. 1 Newsom, in section 23-23-1e. Clark & Woodward have built a derrick on the Clark land, in section 17-23-2e, about six miles east of the Clark "discovery" well.

The second well on the Webb structure, in township 21-14, Webster Parish, was brought in last week by the Fortuna Oil Company on its S. J. Merritt lease, located in section 14, adjoining the section in which Dr. Webb's discovery well is located. It is credited with an initial production of 42 million cubic feet of gas, and a rock pressure of 1,075 feet, total depth 2,514 feet. The Oil Fields Gas Company is drilling below 1,200 feet in its well on the Merritt land, in the same section.

The Texas Company is drilling below 3,200 feet in its No. 1 Merritt, in section 5-22-10, in which it is understood that a Woodbine test will be made.

The Louisiana-Texas Community Oil Company is preparing to install pumping equipment at its No. 1 French, in section 34-23-16, near Vivian, in Caddo Parish. The hole has been cleaned, and is now standing with about 1,600 feet of 31 gravity oil and 200 feet of salt water in it. Two feet of sand is logged at a total depth of 2,883 feet. This is the third well drilled in this same section by this company.

Brewer & Sewell have set casing in their No. 1 Sharp, in section 15-18-16, near the western end of Cross Lake. A test will be made next week. This well staged a gas blow-out recently.

The Urania Petroleum Company, of England, is setting eight-inch casing at 1,460 feet in its second well at Urania, in La Salle Parish. Its first well showed oil.

Welborn & Deputy have made a location for a test to be drilled on the McVey land, in section 9-19-11, Bossier Parish, one mile northwest of the Bellevue proven field.

Pope et al have abandoned their No. 1 Catlett, in section 27-19-11, following a test of salt water at 301 feet. Webb and others are now drilling at 335 feet in their well on the same property.

The Standard Oil Company is stringing up cable tools for the purpose of making a deep test in its No. 3 Shaw-Palmer, which is located in section 30-21-7, of the Homer field, in Claiborne Parish.

The Ohio Oil Company is coring ahead slowly, now in sandy shale at 2,937 feet, in its Teague wildcat, in section 10-23-7, east of the Haynesville field. Frequent coring has been done throughout the last 125 feet of drilling.

R. J. O'Brien and associates are building a derrick on the Dales property in section 26-21-9, Claiborne Parish, located about seven miles west of the Homer field, and about the same distance east of the Webb Gas Field, in township 21-10, of Webster Parish.

The El Dorado Chief Oil & Gas Company is down below 3,500 feet in its No. 1 McKenzie, in section 35-22-7, Claiborne Parish. It is reported that this hole will be abandoned soon and followed by still another test to be drilled in the same vicinity.

The Ohio Oil Company is preparing

# New Kentucky Well Increases Its Flow; Eastern Fields Initial Output Is Off

**Pittsburgh, Pa., Oct. 15.**—A review of the field east of the Mississippi river for the week shows decline in initial production. Just as many wells were completed but the output slumped.

Late advices from the Cumberland-Monroe Counties, Kentucky, is that the 100-barrel well of E. M. Treat & Co. on the Sam Riddle lease, that started at 20 barrels an hour natural, has increased its flow from 45 to 60 barrels an hour, and the owners were unable to erect tankage fast enough. This well fills a 250-barrel tank in five hours and then must be shut in until another is completed. This well found its big pay at about 80 feet below the Pencil Cave sand, and developed a new producing formation for that field. The well is located near Modoc postoffice, the total depth 1020 feet. Oil is 44 gravity. It is two miles in advance of other production.

The trunk pipe line of the Paragon Development Co., will be completed and tested out by November 1, and then the field will have an outlet for the crude.

Outside of the Treat gusher, the wells of all Eastern fields are rather light in comparison with other weeks reports. Operators in the Eastern fields are of the opinion that crude has seen its low figure and if any change is made in price will show an upward trend, and for that reason development work is maintained to a great extent and a decline in drilling will hardly be noticeable until the close of the year, when the trade usually takes the needed rest for a few weeks, but when early spring comes, they all get busy, for they see better times ahead.

West Virginia is not doing as well in oil, but getting a nice amount of natural gas. The best well for the state for the week was a 25-barrel pumper found by the West Virginia Central Gas Co., on the Eagle land, in Braxton county, which in a way is an important well for that county, which has heretofore been a gas producing region. Another gas area shows a 15 barrel well, which was drilled by the Decem Development Co., on the Markey land in Marshall county.

Ohio had only ordinary wells to report for the week. In the Southeastern Ohio field a 20-barrel by the Pure Oil Co., on the Patterson land, Coshocton county, was the best find. The Central Ohio division came to the front with a 100-barrel Clinton sand well drilled by the Preston Oil Co., on the Hamilton land, in Hocking county, and in Fairfield county, the Carter Oil Co. hit one for 25 barrels on the Young land. Northwestern Ohio's best well reported for the week was the Federal Oil Co.'s Hilton land well in Allen county. The last well reported at 90 barrels a couple of weeks ago, for the Western Oil Co. on the Loose land, at Cygnet, in Wood county, maintains a production around 65 barrels natural.

Indiana failed to report a completion, but Illinois had one stray sand well by the Ohio Oil Co. on the Atkins land, in Clark county, in the old field while the Mid-Egypt Oil & Gas Co. got two nice gas wells in Jackson county.

Outside of the big well of Treat & Co. in the Cumberland-Monroe county, Kentucky, field, W. S. Raydure brought in a 1000-barrel well on the J. M. Riddle land in the same field. In Allen county, Neil & Son hit a 72-barrel producer on the Kirkley land, and G. C. Foster got a 40-barrel well on the Francis land, in Warren county.

According to pipe line statements for the month of September in the fields east of the Mississippi river, there were a total of 2,716,133.50 barrels run from the wells, which includes Illinois and Franklin, Pennsylvania oils. The deliveries of the various pipe lines reporting for the same period amounted to 4,329,720.57 barrels, and the close of September shows a total stocks of crude held in the Eastern field of 17,337,744.5 barrels, of which 7,951,680.79 barrels is Mid-Continent crude, leaving of stocks of real Eastern field production of 9,386,063.76 barrels.

The wells completed during the week in the fields east of the Mississippi river were in fields as follows, showing number of wells, dry holes, gas wells and initial oil production:

| Field— | Comp. | Prod. | Dry | Gas | Gas volume Cubic feet |
|---|---|---|---|---|---|
| New York | 9 | 39 | 0 | 0 | ..... |
| Pennsylvania | 29 | 89 | 5 | 7 | 7,000,000 |
| West Virginia | 25 | 57 | 4 | 15 | 44,500,000 |
| Kentucky | 36 | 238 | 15 | 0 | ..... |
| Tennessee | 2 | 0 | 2 | 0 | ..... |
| S. E. Ohio | 5 | 20 | 3 | 0 | ..... |
| Cent. Ohio | 34 | 136 | 9 | 20 | 22,500,000 |
| N. W. Ohio | 13 | 111 | 3 | 1 | 2,500,000 |
| Indiana | 0 | 0 | 0 | 0 | ..... |
| Illinois | 3 | 45 | 0 | 2 | 4,000,000 |
| Total | 156 | 735 | 31 | 45 | 90,500,000 |
| Previous week | 155 | 1813 | 36 | 28 | 85,250,000 |
| Difference | 1 | 1078 | 5 | 17 | 5,250,000 |

## P. and R. Completes New Salt Creek Pipe Line

**Casper, Wyo., Oct. 15.**—After a working period of only 60 days the new line of the Producers & Refiners Corp. from the Salt Creek field to connect with the Ferris line at Parco has been completed. All ditching, screwing pipe, laying, back filling, river crossings and the completion of four pump stations were finished in the short time. The line is 6 inch.

The work was done by the concern's own organization. Dan H. Freel, who recently joined the P. & R. organization had charge of construction. He was once with the Humble Oil & Refining Company.

to abandon its No. 1 Randall, in section 12-18-7, Bienville Parish, following the pulling of a core of salt water sand at a depth of 2,993 feet.

The Phillips-Garrett Syndicate tested dry with only a showing of gas last week at 2,948 feet in its Blatt well, in section 36-13-14, De Soto Parish. The hole was then deepened six feet by drilling through the liner; and a showing of oil was reported from the present depth of 2,954 feet. Another test will be made as soon as a swab can be sent to the well. Pollack et al are preparing to set 6-inch casing at 2502 feet in their No. 1 Jenkins, in section 25-13-13. The Texas Pacific Coal & Oil Company is making good progress in its Roscoe test, in section 22-12-13, which is now down below 2,000 feet. Caldwell and others are drilling in the gas rock at 995 feet in their No. 1 Welch, which is located in section 7-14-10, about nine miles southeast from Frierson.

# Another Producer Added to Shallow Field of Pecos Valley, New Mexico

**Roswell, New Mexico, Oct. 15.**—The shallow oil producing area in the Pecos River valley section of Eddy County, New Mexico, added another producer last week when the Tri-State Development Company's second test on the C. S. Brown farm, located in NE section 23-19-26, showed good for 25 barrels daily after shot at 890 feet. Storage tanks are being erected to start pumping the well, which is slightly shallower and producing heavier grade of oil than the first producer on the Brown farm. The original well on the Brown farm was drilled for artesian water about eleven years ago, but encountered an oil sand, resulting in a steady flow of oil along with the water. The water was separated from the oil, and the latter was sold as fuel oil. This well was taken over by the Tri-State Company, and the water cased off early this past summer, resulting in a 20-barrel pumper from sand pay at 910-925 feet. The two wells are offsets, and it is reported that two more tests are to be drilled shortly by the same interests, while in the northwest quarter of the same section the Windzor interests have moved in materials for a test.

The Eureka Oil Company's Hawkins-Merchant 1, which was completed last December flowing by heads at rate of 100 barrels 35 gravity oil after shot in tight sand at 974-986 feet, is reported to be still pumping about 20 barrels daily and making sufficient gas to provide fuel for gas engine in pumping. This well is in the NW¼ section 10-19-26, Eddy County, and a second test is drilling at 500 feet in rock. The latter test is located in SW¼ section 3-19-26, or about 400 feet north of the producing well, and several other tests are contemplated.

According to Martin Yates, general field superintendent for the Illinois Producers Company, which discovered a deeper producing oil sand east of the Pecos River in Eddy County last month, two offset tests have been spudded during the past week. The oil producer brought in last month by the Illinois Producers encountered 17 feet of hard sandy lime pay at 1800 feet, and the well showed good for about a half million cubic feet of gas, which is to be piped to the two new tests and used for fuel. This 1800-foot producer is reported to have been completed for about $8000.

# Completions for Past Week in U. S. Fields

## Oklahoma

| Company, Well and Location— | Initial Production Barrels | Depth |
|---|---|---|
| **Beckham County** | | |
| A. W. Moffet et al Walker 1, C NE SE SW 16-9-23w..... | * | 50 |
| **Carter County** | | |
| Wolverine Oil Co. Dillard 110, C NE NE NE 32-4s-2w.... | 345 | 2562 |
| Dillard 16, NEc SW NE 22-4s-2w ..... | 200 | 2559 |
| Dillard 104, SWc NW NE 22-4s-2w ..... | 57 | 2347 |
| Dillard 105 C NW NW SW 22-4s-2w ..... | 50 | 2495 |
| Magnolia Petroleum Co.'s J. H. Bennett 11, C NW NW NW 31-2-2w ..... | 100 | 2786 |
| Smith 1-A, SWc SW SW 24-2s-3w..... | ¶ | 1670 |
| Coline Oil Co. Pierce 5 C NW NW SW 7-2-2w ..... | 80 | 2520 |
| **Creek County** | | |
| H. U. Bartlett et al's L. Brunner 1, SEc SW 11-19n-1e ..... | * | 3360 |
| Eastern Oil Co. Beaver 1, SWc 20-15-8 ..... | * | 3345 |
| Pure Oil Co. Yarhola 7, NEc 17-15-8 ..... | 575 | 3746 |
| Texolean Oil Co. Fixico 8, SWc NE 16-16-8 ..... | 15 | 2228 |
| **Grady County** | | |
| Southern States Pet. Co. Jones 1, C SW SW 29-8-6w ..... | † | .... |
| Nicholson Drilling Co. Bledsoe 1, SEc 8-6-7w ..... | * | 3011 |
| John S. Graham Graham 1, C E L SE SE NE 34-6-7w..... | * | 2510 |
| Ray et al's Harrison 2, NWc SE NE 28-3-5 ..... | * | 1406 |
| **Garvin County** | | |
| Texas Pacific Coal & Oil Co. Richardson 9, NE NE SE 16-1-3 | ¶ | 1482 |
| Magnolia Pet. Co. S. H. Cowan 72, SEc NE 15-1-3..... | ¶ | 1404 |
| Davis & Younger Newberry 4, SWc SE SE NE 14-1-3..... | 10 | 1548 |
| **Kay County** | | |
| Waite Philips Cassady 1, SWc NW 27-25-1 ..... | * | 2608 |
| Cosden & Marland School Land 8-A, C SE NE SE 33-25-1.. | 40 | 2547 |
| Comar Oil Co. Beverlin 13-A, SEc NW NW 32-25-1 ..... | 97 | 2539 |
| Beverlin 21, SWc NW NW 34-25-1 ..... | 16 | 2522 |
| Beverlin 22, C N L S½ W½ NW 34-25-1..... | 200 | 2529 |
| C. C. Endicott 7-A, C SW NW 34-25-1 ..... | 200 | 1968 |
| McCaskey & Wentz McKee 38, C NW SE SW 34-25-1w... | 723 | 2586 |
| Amarada Pet. Co. Spie 1, C SW NE 36-25-1 ..... | 27 | 1892 |
| **Muskogee County** | | |
| Cook & George J. Hawkins & C W L NW NW 5-15-15 ..... | 50 | 1315 |
| **Noble County** | | |
| Gypsy Oil Co. Shawver [illegible] SEc SW NW 2-24-1 ..... | 700 | 1891 |
| Evans 18, SEc NE [illegible]-1w ..... | 200 | 2130 |
| Comar Oil Co. Blubaugh 7-A, SEc SE SW 2-24-1 ..... | 696 | 2590 |
| Blubaugh 11-B, C N L SW 2-24-1 ..... | 887 | 1881 |
| Blubaugh "C"5 NWc SE NW SE 2-24-1 ..... | 145 | 2035 |
| Blubaugh 16, NWc SW NE SW 2-24-1 ..... | 76 | 2050 |
| Gaume 3-B, SWc NW NE 2-24-1w ..... | 230 | 2217 |
| Healdton Oil & Gas Co. Rence 5-A, C NE NE NW 11-24-1 | 643 | 2507 |
| Champlin Ref. Co. C. F. Shultz 1, NEc NW SW 27-24-1w.. | * | 2765 |
| **Okmulgee County** | | |
| McInturff's H. Hawkins 3, SWc NW SE 23-13-14 ..... | ¶ | 2088 |
| F. Skeedy E. Scott 5, C SW NW 23-13-14 ..... | 25 | 1757 |
| W. B. Pine West 5, C NE NW 3-11-12 ..... | * | 2801 |
| **Osage County** | | |
| Munn Bros. No. 3, C W L NE 28-2-12 ..... | 615 | 2050 |
| Atlantic Oil Co. No 4, SE 13-22-8 ..... | * | .... |
| Meridian Oil Co. No. 1, NWc 18-22-9 ..... | * | 2715 |
| Marland Oil Co. No. 9, NE SE 34-22-9 ..... | * | 2392 |
| L. Freidman No. 8, C NW SW SE 18-22-11..... | 2 | 2005 |
| Superior Oil Co. No. 1, SE SW 3-23-8 ..... | 20 | 2394 |
| Riverland Amarada No. 4, C NW 34-23-8 ..... | 35 | 2728 |
| Mutual Oil Co. No. 5, SW SE SW NE 32-24-8 ..... | 150 | 2074 |
| No. 11, C SE NW SW 33-24-8 ..... | 30 | 669 |
| C. B. Peters No. 16, C S L NE 23-25-9 ..... | * | 2050 |
| Laurel Oil Co. No. 1, NE SW 4-27-5 ..... | 35 | 2915 |
| Jennings Oil Co. No. 1 SW NE 31-29-12 ..... | * | 960 |
| Twin States Oil Co. No. 8, NWc 36-27-5..... | 100 | 2975 |
| **Pawnee County** | | |
| Magnolia Pet. Co. Baker 5, SWc NW NW 16-21-7..... | 80 | 3085 |
| **Stephens County** | | |
| Magnolia Pet. Co. Johnson 4, SWc NE NE 24-1s-9w..... | * | 2075 |
| **Tulsa County** | | |
| Ed Lee et al Townsite 1, C W L E½ SW SE..... | * | 750 |

## Louisiana

| Company, Well, Location— | Initial Production Bbls. | Depth |
|---|---|---|
| **Bellevue Field** | | |
| Bliss & Weatherbee Fee 16, 15-19-11..... | * | 500 |
| Fee 18, 15-19-11 ..... | * | 400 |
| Humble Oil & Refining Co. Bliss & Weatherbee 16, 15-19-11 | * | 501 |
| Pope et al Catlett 1, 27-19-11 ..... | * | 301 |
| **Caddo Field** | | |
| Fortuna Oil Co. Rains 19, 22-21-15..... | 7 | 1610 |
| Muslow Oil Co. Brown Fee 1, 31-21-15 ..... | 40 | 1590 |
| Total, 2 wells ..... | 47 | |
| **Haynesville Field** | | |
| Ohio Oil Co. J. R. Sherman 16, 23-23-8..... | * | 2849 |
| **Monroe Field, Morehouse Parish** | | |
| Ladell et al Fee 15, 23-20-2e ..... | ¶2 | 2279 |
| **Monroe Field, Ouachita Parish** | | |
| Florsheim et al Richie 1, 32-19-5e ..... | ¶21 | 2210 |
| Hosterman et al Stubbs 2, 28-19-5e ..... | ¶10 | 2256 |
| Maury Drilling Co. McEwen 2, 20-19-4e ..... | ¶9 | 2189 |
| Monroe Louisiana Carbon Co. Hancock 1, 28-19-5e..... | ¶3 | 2219 |
| Palmer Corporation Morgan 1, 21-19-5e..... | ¶11 | 2240 |
| The Texas Company O'Neill 2, 33-19-5e ..... | ¶6 | 2214 |
| Texas Louisiana P. & G. Company's Fee 2, 4-19-5e..... | ¶12 | 2218 |
| United Gas & Products Company Dougherty 3, 28-19-5e..... | ¶13 | 2213 |
| Total, 9 wells ..... | ¶87 | |
| **Webster Parish** | | |
| Fortuna Oil Company's Merritt 1, 14-21-10..... | ¶42 | 2514 |

## Arkansas

| Company, Well, Location— | Initial Production Bbls. | Depth |
|---|---|---|
| **Stephens Field, Columbia County** | | |
| Hude & Aarnes Brown 4, 13-15-20 ..... | 35 | 2090 |
| Standard Oil Co. Milner 8, 24-15-20 ..... | 35 | 2156 |
| **Stephens Field, Ouachita County** | | |
| Ohio Oil Co. Tidwell 6, 20-15-19 ..... | 10 | 2164 |
| Total, 3 well ..... | 80 | |
| **Irma Field, Nevada County** | | |
| Miller & Kimbrough Page 1, 31-14-21..... | * | 1960 |
| **El Dorado East Field, Union County** | | |
| Imperial Oil & Gas Co. Central Bank 1, 12-17-15 ..... | 15 | 2147 |
| Quaker City Pet. Co. Polk & Ezell 12, 11-17-15 ..... | 25 | 2200 |
| Total, 2 wells ..... | 35 | |
| **Smackover Field, Ouachita County** | | |
| W. W. Brown Townsite 1, 30-15-16 .....¶5-350 | | 1937 |
| Sun Co. Hardin 3, 27-15-16 ..... | 80 | 2035 |
| **Smackover Field, Union County** | | |
| Arkansas Pipe Line & Navigation Co. Harrell 3, 17-16-15.... | 600 | 2010 |
| Amerada Pet. Co. Lyall 4, 3-16-15.....1600 | | 1983 |
| Broderick & Calvert's G. E. Murphy A-3, 8-16-15 ..... | 200 | 2082 |
| Crosbie Trust Murphy 2, 15-16-15 ..... | 700 | 2057 |
| Gladys Belle Oil Co. Thompson 7, 7-16-15..... | 80 | 2082 |
| Gulf Ref. Co. G. E. Murphy 2, 8-16-15 ..... | 10 | 1972 |
| Houston Oil Co. McClanahan 1, 12-16-15 ..... | 7 | 2012 |
| Humble Oil & Ref. Co. B. Goodwin 1, 3-16-15 ..... | 1000 | 1990 |
| Monarch Oil Co. Harrell 1, 17-16-15 .....1000 | | 2126 |
| Harry Morris Trust Oran Hill A-1, 5-16-15 ..... | 125 | 1982 |
| Page et al Murphy 2, 15-16-15 ..... | 110 | 2012 |
| Murphy 3, 15-16-15 ..... | 300 | 2055 |
| Simms Oil Co. Childs 1, 8-16-16 ..... | 110 | 2636 |
| Wilcox Oil Co. Murphy 2, 7-16-15 .....¶2-30 | | 2090 |
| Total, 10 wells .....¶7-6302 | | |

## Texas

**CORSICANA-POWELL COMPLETIONS**

| Company, Well, Location— | Initial Production Bbls. | Depth |
|---|---|---|
| Atlantic Oil Prod. Co. B. F. Irvine 6-B ..... | 300 | 2946 |
| W. S. Kellum 1 .....17,000 | | 2961 |
| Gulf Prod. Co. J. B. Bush 1 .....5500 | | 2945 |
| Humble O. & R. Co. W. A. Brown 5 ..... | 1200 | 2990 |
| L. T. Davis 3 ..... | 865 | 2980 |
| L. T. Davis 4 .....13,600 | | 2968 |
| B. F. Irvine C-5 ..... | 175 | 2925 |
| B. F. Irvine C-11 .....2000 | | 2940 |
| L. W. Pugh-Walker 5 ..... | † | 2222 |
| J. Murchison 2 ..... | 980 | 2987 |
| R. D. Fleming 2-B .....3500 | | 2958 |
| Humphreys (Pure) Oil Co. W. J. McKie 51 .....1600 | | 2850 |
| Garland H. Kent R. D. Fleming 1..6100 | | 2958 |
| E. L. Smith Oil Co. R. L. Wheelock 1 .....7680 | | 2966 |
| Roxana Pet. Corp.'s W. J. McKie 8-A, (DD) .....1200 | | 2936 |
| The Texas Co. R. D. Fleming 1 ...8000 | | 2960 |
| Tidal Oil Co. & Frank Buttram Crews-Lovett 1 .....19,000 | | 2962 |
| W. L. Phillips 3 .....7000 | | 2971 |
| W. L. Phillips 5 .....3000 | | 2970 |

### ELECTRA COMPLETIONS

| Company, Well, Location | Initial Production bbls. | Depth |
|---|---|---|
| Mansfield et al's Mrs. G. Jennings 2 | * | 890 |
| Apperson et al's G. B. Ancell 1 | * | 1000 |
| John O'Neil's Rio Bravo 11 | * | 1515 |
| Peterson et al W. B. Throckmorton 1 | * | 1950 |
| Ryan Pet. Co. G. E. Nance 11 | 90 | 1225 |

### ARCHER COUNTY COMPLETIONS

| | | |
|---|---|---|
| S. Bell et al's L. F. Wilson 2 | 200 | 1598 |
| Bohler & Wolf H. Wilmut 1 | 200 | 1599 |
| Scott Bower W. P. Ferguson 2 | * | 1800 |
| Clayton et al's J. T. Richardson 2-B | 75 | 1370 |
| J. V. Henley et al Blk 24 Wilson 2-A | 200 | 1597 |
| Payne & Wilmut H. Wilmut 3 | 220 | 1606 |
| Maer & Standiforth Netherton 1 | * | 1835 |
| Sixty Six Oil Co. L. F. Wilson 2 | 220 | 1588 |
| J. I. Staley L. F. Wilson 1-C | 180 | 1590 |
| Trammel Oil Co. W. L. Andrews 1 | * | 1508 |
| Dr. Wallace K. & Kempner 9 | 75 | 1750 |
| C. W. Whitehead et al A. M. Kunkel 1 | * | 1985 |

### YOUNG COUNTY COMPLETIONS

| | | |
|---|---|---|
| Carter et al W. J. Sanders 1 | * | 4110 |
| J. H. Rubenkoenig 1 | * | 4000 |
| E. C. Stovall et al E. C. Stovall 1 | 20 | 2140 |

### K-M-A AND IOWA PARK COMPLETION

| | | |
|---|---|---|
| Cottom Oil Co. K. & K. Blk. 82, 1 | 10 | 678 |

### STEPHENS COUNTY COMPLETIONS

| | | |
|---|---|---|
| Corbett et al Williams 1 | 100 | 2200 |
| Landreth Prod. Corp. Moore 1 | ¶4-150 | 3585 |

### DESDEMONA-GORMAN COMPLETIONS

| | | |
|---|---|---|
| Brothers et al R. D. Rogers 2 | 60 | 2857 |
| Lightfoot et al Perry 1 | 10 | 875 |
| Lone Star Gas Co. McMillian 1-A | 15 | 3170 |

### RANGER-EASTLAND COMPLETIONS

| | | |
|---|---|---|
| Robt. D. Gordon et al Amis 1 | ¶10 | 3196 |
| Mid-Kansas Oil & Gas Co. Harrell 5 | ¶2 | 3548 |
| Mook-Texas Oil Co. et al Harrell 2 | * | 3620 |

### GULF COAST

| | | | |
|---|---|---|---|
| **Sour Lake—** | | | |
| The Texas Co. Fee 248, wo | | 18 | 1510 |
| **Hull—** | | | |
| Republic Prod. Co. Dolbear 20, wo | | 100 | 2745 |
| Yount Lee Oil Co. Taylor 2, Fee | | 2500 | 3015 |
| Sun Co. Carr 9 | | 100 | 1190 |
| Texas Co. Hannah 1 | | 200 | 3035 |
| **West Columbia—** | | | |
| Sun Co. Robertson 2, wo | | * | 3510 |
| **Orange—** | | | |
| Mutual Oil Co. Chesson 46, wo | | * | 3075 |
| Sinclair O. & G. Co. Granger 5, wo | | 145 | 3400 |
| Sun Co. Belile 3 | | 50 | 3475 |

### MIRANDO COMPLETIONS

| | | |
|---|---|---|
| **Webb County—** | | |
| Magnolia Pet. Co. 15 | 100 | 1708 |
| Laurel Deep Wells Oil Co. Garcia 4 | 100 | 1672 |
| Cin-Tex Oil Co. Garcia 2 | 150 | 1772 |

### LULING COMPLETIONS

| | | |
|---|---|---|
| **Caldwell County—** | | |
| Magnolia Pet. Co. Merriwether 4 | 250 | .... |
| United North & South Oil Co Gideon 1 | 700 | .... |

## California

| | | | |
|---|---|---|---|
| **Santa Fe Springs—** | | | |
| Amazon Drlg. Co. Fulton 1 | | 3000 | 4610 |
| Amalgamated Delugge 4 | | 3100 | 4722 |
| Union Oil Co. Alexander 8 | | 850 | 4355 |
| Standard Weisel 5 | | 3000 | 4650 |
| Jameson Oil Co. Compton 2 | | 900 | 4583 |
| General Petroleum 52-B | | 750 | 4750 |
| Shell G. H. N. 8 | | 4650 | 4677 |
| **Long Beach—** | | | |
| W. R. Ramsey Coffin 1 | | 3000 | 5000 |
| West Coast Crude Oil Co. No. 1 | | 350 | 3978 |
| Fred B. Foster 55 | | 1500 | 4003 |
| San Martina Green 1 | | 700 | 4420 |
| Shell Nicholson 3 | | 2200 | 5301 |
| Shell Pickler 2 | | 2000 | 5251 |
| General Pet. Clock 1 | | 5015 | 1800 |
| **Huntington Beach—** | | | |
| Auburn Oil Co. Turley 2 | | 100 | 4900 |
| Invader Oil Co. Miller 1-A | | 500 | 4550 |
| Texas Holding Co. Miller Gowan 3A | | 125 | 4800 |
| **Torrance—** | | | |
| C. C. M. Oil Co. Torrance 9 | | 150 | 3700 |

## Eastern States

### NEW YORK COMPLETIONS

| | | |
|---|---|---|
| **Allegany County—** | | |
| Hazlewood Oil Co. Hazlewood 1 | 7 | .... |
| J. E. Lesner & Co. Lesner 1 | 7 | .... |
| Brown & Co. Pierce 1 | 7 | .... |
| Empire Co., Ltd., Empire 1 | 4 | .... |
| Empire 2 | 3 | .... |
| McKee 1 | 3 | .... |
| J. J. Canfield Canfield 1 | 3 | .... |
| N. K. Wilson Childs 1 | 3 | .... |
| Producers Gas Co. Fogerty 1 | 2 | .... |

### PENNSYLVANIA COMPLETIONS

| | | |
|---|---|---|
| **Bradford Field—** | | |
| Zent & Co. Mehan 2 | 2 | .... |
| Denwood Oil Co. Garlock 1 | 3 | .... |
| J. S. Green & Co. Bingham 1 | 3 | .... |
| Grant & McGregor Lafferty 1 | 3 | .... |
| South Penn Oil Co. White 1 | 4 | .... |
| White 2 | 7 | .... |
| Bingham 570 tract 81 | 8 | .... |
| Wiston 67 | 4 | .... |
| South Penn 24 | 3 | .... |
| Bingham 88, tract 9 | 2 | .... |
| Bingham 398, tract 1 | 3 | .... |
| Simpson Bros. Bingham 136, tract 16 | 7 | .... |
| Evans & Co. Court 31 | * | .... |
| H. J. Sturdevant Sturdevant 1 | 4 | .... |
| McCandless & Krumpt Burns 20 | 7 | .... |
| E. Berry Berry 1 | 4 | .... |
| **Venango County—** | | |
| Mail & Co. Mail 2 | * | .... |
| S. Y. Ramage Fisher 14 | 3 | .... |
| Breen, Wilbert & Co. Stubles 7 | 2 | .... |
| Walter & Co. Stewart 6 | 2 | .... |
| Hoffman & Co. Myers 12 | 2 | .... |
| Carp & Kelley Conway 20 | 2 | .... |
| Korb & Co. Korb 1 | * | .... |
| **Greene County—** | | |
| Peoples Nat. Gas Co. Manius Six 1 | ¶½ | .... |
| W. & M. Minor 1 | ¶3 | .... |
| Richhill O. & G. Co. J. M. Phillips1 | ¶3 | .... |
| Grim Oil & Gas Co. J. Caldwell 1 | ¶3 | .... |
| Hoy Oil & Gas Co. J. M. Hoy 1 | ¶2½ | .... |
| Carnegie Nat. Gas Co. Sam Lemley 1 | ¶3 | .... |
| **Clarion County—** | | |
| Kugler & Co. Bonis 2 | 2 | .... |
| Cropp & Co. Porter Estate 9 | 2 | .... |
| C. S. Glosser & Co. Rouche 1 | * | .... |
| Alum Rock Gas Co. Guth 3 | ¶2 | .... |
| **Allegheny County—** | | |
| J. D. White Oil Co. Dixon lot 1 | * | .... |

### WEST VIRGINIA COMPLETIONS

| | | |
|---|---|---|
| **Ritchie County—** | | |
| Ben Beall & Co. W. H. Goff 1 | ¶2 | .... |
| Penn Royal Oil & Gas Co. S. N. Jackson 1 | ¶½ | .... |
| Carnegie Nat. Gas Co. S. S. Thrap 5 | ¶2 | .... |
| Lewis Garrison 2 | * | .... |
| Star Oil & Gas Co. Ida B. Bode 2 | ¶2½ | .... |
| J. E. Overton & Co. Mart McTighe 1 | ¶2½ | .... |
| **Doddridge County—** | | |
| Raccoon Oil Co. James Kelley 4 | 5 | .... |
| August Drainer 1 | 5 | .... |
| Creed Oil Co. A. B. Smith 1 | * | .... |
| **Gilmer County—** | | |
| Pittsburgh-West Virginia O. & G. Co. Miller heirs 1 | ¶1½ | .... |
| Dave Linger 1 | ¶2½ | .... |
| Chartiers Oil Co. Baptist Missionary 1 | ¶4 | .... |
| Hope Nat. Gas Co. W. C. Gum 1 | ¶3½ | .... |
| **Braxton County—** | | |
| West Virginia Central Gas Co. C. L. Eagle 5 | 25 | .... |
| Star Basin Oil Co. W. A. Ramsey 2 | ¶4 | .... |
| **Marshall County—** | | |
| Decem Dev. Co. Thos. Markey 2 | 15 | .... |
| Manufacturers Light & Heat Co. W. H. Lough 2 | * | .... |
| **Roane County—** | | |
| Seaman Oil Co. J. M. Seaman 7 | 2 | .... |
| Louis Davis Robt N. Green 3 | 4 | .... |
| **Pleasants County—** | | |
| Walnut Run Oil Co. L. C. Walton 8 | 5 | .... |
| **Lewis County—** | | |
| Progressive Oil & Gas Co. L. V. Smith 1 | ¶3½ | .... |
| **Monongalia County—** | | |
| Randall Gas Co. P. W. Moore 1 | ¶3 | .... |
| **Calhoun County—** | | |
| Chemical Oil Co. A. C. Fisher 11 | ¶3 | .... |
| **Harrison County—** | | |
| Northwestern Oil & Gas Co. R. Haserman 1 | ¶4 | .... |
| **Lincoln County—** | | |
| White Sand Oil Co. Reece Pauley 6 | ¶2 | .... |

## Ohio

### SOUTHEASTERN OHIO COMPLETIONS

| | | |
|---|---|---|
| **Noble County—** | | |
| Dietrick & Co. Armstrong 12 | * | .... |
| Cain & Co. H. L. Devoll 4 | * | .... |
| **Coshocton County —** | | |
| Pure Oil Co. J. W. Patterson 1 | 20 | .... |
| **Muskingum County—** | | |
| Pure Oil Co. Charles Bay 1 | * | 4800 |
| **Guernsey County—** | | |
| Ohio Fuel Supply Co. John Bay 1 | * | .... |

### CENTRAL OHIO COMPLETIONS

| | | |
|---|---|---|
| **Knox County—** | | |
| Heisey Gas Co. Ben Ross 3 | ¶¼ | .... |
| East Ohio Gas Co. E. E. Ligghifer 1 | * | .... |
| Preston Oil Co. Sam Ross 4 | ¶½ | .... |
| Sam Ross 5 | ¶½ | .... |
| J. J. Denbow & Co. G. W. Miller 21 | 3 | .... |
| G. W. Miller 23 | 5 | .... |
| F. Marion Snuyder G. W. Miller 8 | 3 | .... |
| **Wayne County—** | | |
| Logan Gas Co. A. P. Walter 1 | * | .... |
| J. J. Risser 3 | ¶½ | .... |
| East Ohio Gas Co. C. O. Ports 3 | ¶½ | .... |
| S. McCray 1 | * | .... |
| Warn & Jordan E. A. Jordan 1 | ¶1½ | .... |
| Ohio Fuel Gas Co. V. Everwine 1 | * | .... |
| **Medina County—** | | |
| Logan Gas Co. G. F. Gunkleman 1 | ¶1 | .... |
| F. & H. Deirick 1 | ¶½ | .... |
| Fred Kemp 1 | ¶½ | .... |
| Hulse & Koontz J. H. Crawford 1 | ¶¼ | .... |
| **Holmes County—** | | |
| East Ohio Gas Co. Avery Metcalf 1 | ¶2½ | .... |
| J. A. Baker 1 | ¶3½ | .... |
| Central Ohio Gas Co. J. B. Williams 2 | ¶1¼ | .... |
| Ohio Oil Co. L. C. Sprowls 1 | * | .... |
| **Hocking County—** | | |
| Preston Oil Co. J. M. Hamilton 12 | 100 | .... |
| Logan Gas Co. J. Wells Tom 1 | ¶½ | .... |
| Ohio Fuel Gas Co. G. A. Schael 1 | * | .... |
| **Fairfield County—** | | |
| Carter Oil Co. M. Young 1 | 25 | .... |
| Ohio Fuel Gas Co. Milt W. Watson 1 | ¶¼ | .... |
| Logan Gas Co. M. F. Taylor 4 | * | .... |

| Company, Well, Location— | Initial Production bbls. | Depth |
|---|---|---|
| **Jackson County—** | | |
| Ohio Fuel Supply Co. F. H. Johnson 1 | ¶1½ | .... |
| J. W. Harberger 3 | ¶½ | .... |
| J. C. Poor 3 | ¶2 | .... |
| **Ashland County—** | | |
| East Ohio Gas Co. J. B. Date 3 | ¶1¼ | .... |
| Logan Gas Co. J. Tschantz 1 | * | .... |
| **Cuyahoga County—** | | |
| East Ohio Prod. & Ref. Co. H. G. Hoy 1 | * | 2835 |

## NORTHWESTERN OHIO COMPLETIONS

| | | |
|---|---|---|
| **Ottawa County—** | | |
| Harris Oil Co. H. Dietermyer 5 | 6 | 1295 |
| Zorn-Hornung Oil Co. Belle Clay 5 | 12 | 1332 |
| Scott Oil Co. J. Henry 2 | 4 | 1325 |
| **Wood County—** | | |
| John E. Welton George Dauer 1 | 10 | 1293 |
| Zeising & Co. E. Berndt 2 | 20 | 1207 |
| **Hancock County—** | | |
| Fuller & Co. H. P. Smith 12 | 1 | .... |
| Cochran, Moore & Co. J. D. Moore 1 | 23 | .... |
| **Mercer County—** | | |
| Liberty Oil Co. Radabaugh-Vining 5, 6 | * | .... |
| **Allen County—** | | |
| Federal Oil Co. P. Hamilton 2 | 25 | 1316 |
| **Auglaize County—** | | |
| Lang & Kirk Gochenour 16 | 10 | 1297 |
| **Hardin County—** | | |
| Central Ohio Gas Co. C. A. Robeson 1 | ¶2½ | 1407 |
| **Van Wert County—** | | |
| Boyd & Stelzer W. H. High 1 | * | 1304 |

## ILLINOIS COMPLETIONS

| Company, Well, Location | Initial Production Bbls. | Depth |
|---|---|---|
| **Jackson County—** | | |
| Mid-Egypt Oil & Gas Co. Unknown 1 | ¶2 | 917 |
| **Clark County—** | | |
| Ohio Oil Co. Atkins 9 | 45 | 1401 |

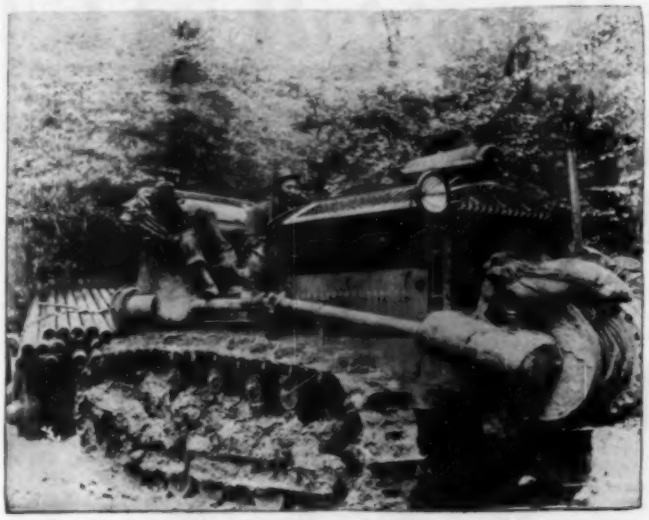
## KENTUCKY COMPLETIONS

| | | |
|---|---|---|
| **Johnson-Magoffin Counties—** | | |
| Swiss Oil Corp. M. Blanton 26 | 8 | .... |
| M. Blanton 27 | 8 | .... |
| M. Blanton 28 | 6 | .... |
| Meade & Stafford Thomas Meade 6 | 1 | .... |
| Model Oil Co. J. Lemaster 14 | 8 | .... |
| Kentucky Counties Oil Co. Rorick 4 | 10 | .... |
| Oliver Jenkins & Co. H. Adams 1 | 5 | .... |
| R. G. Gillespie Sam Blanton 125 acres 7 | 10 | .... |
| Sam Blanton 125 acres 8 | 10 | .... |
| Darius Conley 6 | 10 | .... |
| Darius Conley 7 | 10 | .... |
| Darius Conley 8 | 10 | .... |
| Atlantic Oil Prod. Co. Cantrell 8 | 10 | .... |
| T. J. Tonkin & Co. I. Williams 4 | 10 | .... |
| **Lawrence-Johnson Counties—** | | |
| W. J. Heeter & Co. C. Osborne 1 | 5 | .... |
| Five Acre Oil Co. Bob Fyffe 2 | 8 | .... |
| Cumberland Pet. Co. L. Skaggs Jr. 5 | 10 | .... |
| L. Skaggs Jr. 6 | 7 | .... |
| U. Skaggs Sr. 5 | 10 | .... |
| Indian-Tex Pet. Co. J. C. Gillam 6 | 15 | .... |
| Mid-South Oil Co. W. H. Kelley 1 | 3 | .... |
| Union Gas & Oil Co. E. H. Skaggs 3 | 5 | .... |
| Oscar Nelson R. Wellman 1 | 1 | .... |
| J. Ratcliff 1 | 3 | .... |
| **Allen County—** | | |
| Ray & Co. Bethel Church lot 2 | 3 | 312 |
| Dixon & Co. Halifax 1 | * | 408 |

| Company, Well and Location | Initial Production Bbls. | Depth |
|---|---|---|
| Neil & Son Kirley 2 | 72 | 206 |
| Karns & Co. S. Hinton 2 | * | 268 |
| R. E. Wilson Wilson 2 | 10 | 428 |
| Sheridan & Co. P. Gibson 2 | 20 | 312 |
| **Cumberland-Monroe Counties—** | | |
| Huntington-Okla. Oil Co. Coffee 2 | * | 410 |
| W. S. Raydure J. M. Riddle 2 | 100 | 610 |
| Martslof Fuel Prod. Co. S. Brenton 1 | 10 | 527 |
| E. M. Treat & Co. S. Riddle 1 | 50 | 1020 |
| **Warren County—** | | |
| J. L. Harper & Co. Upton 4 | 14 | 316 |
| Cadet Oil & Gas Co. Biddle 20 | 25 | 650 |
| Plantation Consolidated Oil Co. W. A. Gott 6 | 10 | 1007 |
| G. C. Foster Dr. Francis 1 | 40 | 558 |
| **Simpson County—** | | |
| Liggett & Dixon Butts 4 | 3 | .... |
| Western Engineering & Dev Co. Pugh 12 | * | 510 |
| W. H. Daniels Ellis 1 | * | 610 |
| J. H. McClurkin & Co. Slate 1 | * | 500 |
| **Calloway County—** | | |
| Davenport Oil Co. Near Murry 1 | * | 650 |
| McMurtrie & Co. Unknown 1 | * | 603 |
| **Owensboro District—** | | |
| Damron Bros. Miller 2 | 4 | 474 |
| **Graves County—** | | |
| Unknown Parties Unknown 1 | * | .... |

## TENNESSEE COMPLETIONS

| | | |
|---|---|---|
| **Marshall County—** | | |
| Beckley Oil & Gas Co. Heywool 1 | * | .... |
| **Clay County—** | | |
| Biggerstaff & Durham Bilbrey 1 | * | .... |



# Where no road exists

Through tropical wilderness, over mountains, or across desert, the "Caterpillar"* makes its own roads and then hauls over them. It transports heavy cargoes of boilers or other machinery, drilling rigs, derrick timbers, pipe, or other supplies, and in numerous fields, is the only power that can be used.

Because the "Caterpillar" is able to climb steep grades, to pull in sand or mud, or plow through snow, producers and contractors find it indispensable in the construction of pipe lines and in contract hauling.

Winch and cable attachments provide ready power for loading, and for general construction work. Holt engineers, with long and continued experience in cross country transportation, have perfected the "Caterpillar" for the severest oil field work. The "Caterpillar" is backed by Holt's positive guarantee of satisfaction, and a complete, efficient service organization.

** There is but one "Caterpillar"—Holt builds it*

**THE HOLT MANUFACTURING CO., Inc.**
**PEORIA, ILL.**

Eastern Division: 50 Church St., New York

*Branches and Service Stations All Over the World*

CATERPILLAR
HOLT
PEORIA, ILL.
STOCKTON, CALIF.

*GUARANTEED*

# Sucker Rod Hooks

IF YOU'D like to try the advantages of a really SAFE sucker rod hook, we recommend the Stewart, made by us and sold by the Walter O'Bannon Company, 817 East First Street, Tulsa, Oklahoma.

Stewart Sucker Rod Hooks are guaranteed by the manufacturers and by the Walter O'Bannon Company to be not only free from defects, but to be satisfactory to the purchaser. The purchase price will be promptly and cheerfully refunded any dissatisfied customer.

Stewart Hooks do away with accident and annoyance common to the use of ordinary hooks. No load ever jumped out of a Stewart Sucker Rod Hook—or ever will.

The Stewart slips readily through rigging and past obstructions. It can't hang.

It is made oversize and overstrong, and it swivels on special, highly tempered bearings.

If your local dealer hasn't Stewart Sucker Rod Hooks, write O'Bannon for prices and illustrated literature. No obligation whatever.

*GOOD PEOPLE TO DO BUSINESS WITH*

# Pelican Well Tool & Supply Co.

**General Offices: Shreveport, La.**

*M. Ind. Rgtrds.* PELCO *Reg. U. S. Pat. Office*

# Permits Granted and Locations for New Wells
## (Arkansas—Louisiana—Texas)

### ARKANSAS

**Nevada County**—Ames et al's Watters 4, 11-14-21, NW cor.

**Ouachita County**—Arkansas Natural Gas Co.'s Patton 1, 31-15-16, 200 ft south and west of NE cor SE¼ NE¼. Bashara et al's Patton 1, 32-15-16, 265 ft north and 200 ft east of SW cor W½ NE¼ SW¼. Burch & Walker's Patton 1, 31-15-16, 200 ft south and 660 ft east of NW cor NE¼ NE¼; Patton 2, 200 ft south and west of NE cor NE¼ NE¼; Patton 3, 200 ft north and west of SE cor NE¼ NE¼. E. Johnson et al's Hughes 1, 21-15-16, 150 ft north and east of SW cor SE¼ SE¼. Magnolia Pet. Co.'s Smith 2, 31-15-16, 200 ft south and west of NE cor SE¼ NW¼. Smith Ref. Co.'s Myar 4, 30-15-16, SW cor SE¼ SE¼. V. K. F. Drilling Co.'s Patton 1, 32-15-16, 200 ft south and east of NWc NW¼ NW¼; Patton 2, SW cor NW¼ NW¼.

**Union County**—Chew et al's Harrell 1, 17-16-15, 200 ft north and east of SW cor SW¼ NW¼. De Luckie et al's Harrell 2, 17-16-15, 200 ft south and west of NE cor SE¼ NW¼. Federal Pet. Co.'s Hicks 2, 20-16-15, 200 ft south and west of NE cor SE¼ NW¼. Tidal Osage Oil Co.'s Vestal 1, 17-16-15, 200 ft south and east of NW cor SW¼ SE¼.

### LOUISIANA

**Bossier Parish**—Humble Oil & Refg. Co.'s Roy-Bliss & Wetherbee 20, 15-19n-11w, 490 ft N and 100 ft W of center of sec; Roy-Bliss & Wetherbee 22, 15-19n-11w, 850 ft S and 2490 ft E of NW cor of sec; Roy-Bliss & Wetherbee 23, 15-19n-11w, 390 ft S and 2490 ft E of NW cor of sec; Roy-Bliss & Wetherbee 21, 15-19n-11w, 830 ft N and 10 ft W of center of sec.

**Calcasieu Parish**—Just Oil & Refining Co., Inc.'s Lyons et al 2, 33-10s-2w, 150 ft N and 81 ft E of SW cor SE¼ of NW¼.

**Ouachita Parish**—Cosmos Carbon Co.'s Hancock 2, 20-19n-5e, 1020 ft S and 1020 ft W of NE cor of sec. La Del Oil Properties' Fee 17, 29-20n-5e, 1610 ft S and 290 ft E of NW cor NW¼ of NE¼.

**St. Martin Parish**—Evan Guidroz's Begnaud 1, 11-9s-5w, 325 ft S and 325 ft E of NW cor SW¼ of NE¼.

### TEXAS

**Archer County**—V. O. E. Wright et al's W. J. Rogle 1, Jas. Hopkins sur, 150 ft to N and W lines. Shamrock Oil Co.'s J. T. Richardson 3, J. L. Anderson sur, 150 ft to N and E lines. Callender & Allday's H. Hawkins 1, H. & T. C. Ry. sur, 810 ft to W and 150 ft to S line. The Texas Co.'s Carter Bros. 6, M. C. S. L., 490 ft to W and 150 ft to N line. Sunshine State Oil & Refg. Co.'s C. E. Carter et al 9, M. C. S. L. Chenault & Lea's L. F. Wilson D-4, Amer. Trib. sur, 150 ft to S and E lines; L. F. Wilson D-5, 210 ft W D-4. Jeffers & Hardesty's Parish et al 1, S. P. Ry. sur, 210 ft to N and E lines. Medders & Creath's J. H. White 1, Amer. Trib. sur, 150 ft to S and W lines.

**Atascosa County**—Witherspoon Oil Co.'s W. P. Fuller 8, J. A. Sharpe sur, 300 ft E. 7. Frontier Oil Co.'s Witherspoon Oil Co. 1, J. P. McKinney sur. Texacosa Oil & Gas Co.'s A. Peeler et al 1, abst 21½.

**Callahan County**—F. E. Skinner's R. D. Williams 1, T. E. & L. Ry. sur, 150 ft to S and W lines. A. G. Ilseng's J. S. Hart 9, Insane Asy. sur, 150 ft to N and E lines; 10, 150 ft S 9; 11, 150 ft S 10. L. A. Foster's A. H. Wagley 2-A, I. & G. N. sur, 300 ft to W and 450 ft to S line. J. W. Keyes' L. H. Qualls 8, T. E. & L. Ry. sur No. 2287, 375 ft N 3. Shamrock Oil Co.'s W. R. Jackson 3, D. & D. Asy. sur, 300 ft W 1 Warren & Hayes' S. M. Eubanks 4, T. E. & L. Ry sur No. 2299, 300 ft NW 2.

**Comanche County**—A. R. Forster's Mrs. H. G. Foster 1, Thompson sur, center.

**Clay County**—Lone Star Gas Co.'s Panhandle 7, P. C. S. L., 100 ft to S and 200 ft to W line.

**Carson County**—Silk, Bullington & Clark's S. B. Burnett 3, I. & G. N. Ry. sur, 330 ft to S and E lines.

**Caldwell County**—Magnolia Pet. Co.'s C. Byrd 3, Jno. Henry sur, 189 ft to E and 150 ft to S line. United North & South Oil Co.'s W. F. Mercer et al 3, N. Reaville sur, 600 ft S 1.

**Eastland County**—Kirk & Brewer's F. Mahan 1, T. H. Mullryne sur, 286 ft to E and 172 ft to S line. Stephens & Trunick's J. Blackwell 1, M. C. S. L., 460 ft to S and 150 ft to E line.

**Erath County**—Flick Oil & Refg. Co.'s G. H. Roberts 1, M. J. J. Southern sur, 800 ft to W and 1000 ft to S line.

**Falls County**—J. K. Hughes Dev. Co.'s T. C. Westbrook 1, J. J. Acosta sur, 150 ft to S and E lines; 2, 150 ft to S and W lines.

**Gonzales County**—W. O. Wood's S. W. Menley 1, A. B. Williams sur, 300 ft to W and 1000 ft to S line.

**Milam County**—Bartlett Minerva Oil Co.'s J. L. Rettig 1, T. J. Chambers sur, NW cor. W. D. Plewkitt & Co.'s R. V. Ganten 2, M. J. Delgardo sur, 300 ft N 1. Texas Pet. Dev. Co.'s C. F. Neihaus 4, C. F. Neihaus sur, 300 ft S 1.

**Matagorda County**—A. G. Wolfe's J. J. Seerden 2, R. Randle sur, 727 ft to E and 261 to S line.

**Navarro County**—Humphreys Oil Co.'s W. J. McKie 56, Broyles & Buffington sur; 57, 58, R. I. Kent 1-A, Hrs. J. Smith sur, 225 ft NE 1. Gulf Prod. Co.'s J. B. Bush 2, J. Smith sur, 450 ft to E and 150 ft to S line. Humble Oil & Refg. Co.'s R. D. Fleming A-4, R. A. Greer sur, 150 ft to S and E lines; I. N. Cerf A-3, Hrs. J. Smith sur, 150 ft to S and E lines; A-4, 300 ft SW 2. Western Oilfields Corp.'s R. H. Boyd 1, J. D. Matthews sur, 150 ft to S and E lines. Sun Oil Co.'s O. C. Barron 1, Jno. Harris sur, 150 ft to N and W lines. J. D. Graham's Christian 1, W. T. Lane sur, center. R. E. Brooks Jr.'s I. N. Cerf 2, Hrs J. Smith sur, 300 ft SW 1; 3, 300 ft N 1. Atlantic Oil Prod. Co.'s W. S. Kellam 2, J. Harris sur, 611 ft to E and 150 ft to S line; 3, 461 ft W 2; 4, 150 ft to E and 453 ft to S line; 5, 300 ft N 4; 6, 150 ft to E and 453 ft to N line; 7, 150 ft to N and E lines. J. K. Hughes Dev. Co.'s W. J. McKie 14, Jos. Broyles sur, 300 ft SE 5. Lewis & Miller's H. A. Swink 1, Jno. White sur, 610 ft to W and 125 ft to N line. Simms Oil Co.'s J. T. Rose 1, Jno. Harris sur, 150 ft to S and E lines. Webster & Pickins' T. E. Byrd 1, 321 ft to N and E lines. Skelly Oil Co.'s J. D. Matthews 11, J. D. Matthews sur, 488 ft to E and 200 ft to S line.

**Presidio County**—C. Byler's R. Tootle 1, D. & P. sur, 300 ft to N and E lines.

**Shackelford County**—G. L. Powell's M. J. Leach 1, Insane Asy. sur, 150 ft to N and E lines; C. B. Snyder 1, Insane Asy. sur, 150 ft to N and W lines. Averill & Chandler's W. M. Sanders 1, Texas Immigration sur, 150 ft to S and E lines.

**Stephens County**—Fourth & Suddereth's W. P. Bradford 1, T. P. sur, 800 ft to N and 150 ft to W line.

**Wichita County**—Howell & Kollinan's C. H. Van Horn 1, T. C. S. L. Magnolia Pet. Co.'s D. E. Holcomb 22, H. & T. C. Ry. sur, 200 ft E 8; Horton & Walker 21, H. & T. C. Ry. sur No. 7, 200 ft E 19. Texhoma Oil and Refg. Co.'s W. T. Waggoner 10-F, H. and T. C. Ry. sur, 300 ft S 8. Bridwell, Jones & Pace's A. B. Edgerly 1, S. A. & M. G. Ry. sur, 910 ft to W and 560 ft to S line.

**Wilbarger County**—Highland Oil & Gas Co.'s Hawkins 1, H. & T. C. Ry. sur, 150 ft to N and E lines.

**Webb County**—Laurel Oil Co.'s Schott 2, abst 54 SWc. True White's Ochoa 1, Los Ojuelos sur, 150 ft to S and W lines. J. J. O'Hearne's E. Garcia 4, abst. 592, 150 ft to S and E lines. Schott Oil Co.'s E. Garcia 19, abst 592, 155 ft to S and W lines.

---

**Washington, D. C., Oct. 15.**—Advices to the Department of Commerce from Vladivostok are that a force of 800 men is engaged in drilling oil wells in the Chaivinsk district of the Sakhalin Island. It is further stated that some oil has been produced.


*It's a Science—Now*

**PUMPING AND DRILLING WITH ELECTRICITY IS NOW A SCIENCE —MADE SO THROUGH YEARS OF EXPERIMENTING AND YEARS OF PRACTICAL DEMONSTRATION.**

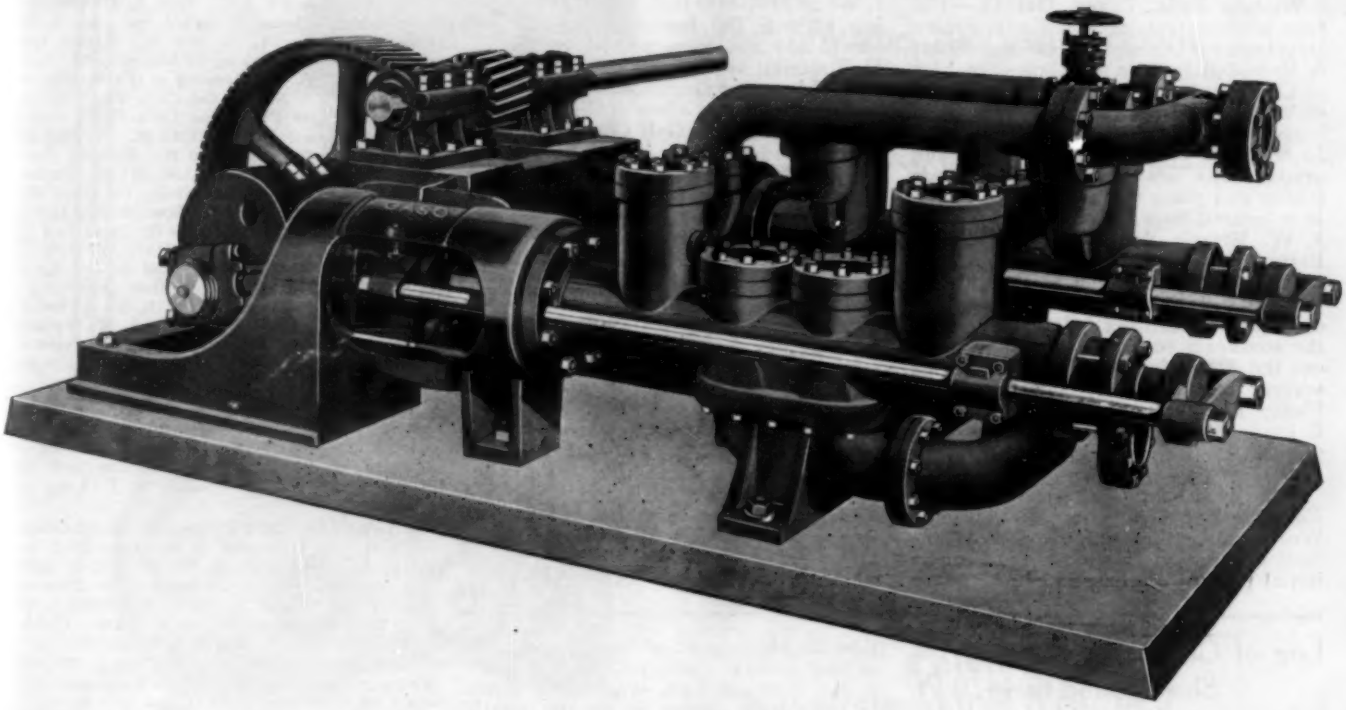
Write for "The operation of oilwells by ELECTRICAL POWER"—It tells the whole story.

Communicate with the office nearest you.

**Southwest General Electric Company**

Dallas El Paso San Antonio Tulsa Houston Oklahoma City

# The Biggest Pump Ever Built in the Midcontinent



## *Another Gaso Achievement!*

The biggest pump ever manufactured in the Midcontinent was recently completed at the Gaso plant, thoroly tested and found absolutely successful. It is now available as part of the regular Gaso line.

Specifications of the new pump are as follows:

Four-inch to 5-inch plungers, 12-inch stroke, horizontal duplex outside packed plunger type, for capacities ranging from 130 to 204 gallons per minute, against pressures from 700 to 900 pounds per square inch. Speed 50 R. P. M.'s, 6-inch suction, 4-inch discharge. Furnished with either cast iron or cast steel fluid ends and with seven-degree or herringbone gears.

This giant pump is another evidence of Gaso's determination to make its line so complete that for every common oil field need there will be a Gaso pump specially designed to meet it. The line now includes a large variety ranging from the smallest and simplest specimen to the giant illustrated above.

No matter what pumping problem you face, therefore, you can be sure of correct design, fewer but stronger parts and highest quality thruout by adopting the Gaso. Our 64-page catalog describes the Gaso line fully. Shall we send you a copy?

GASO PUMP & BURNER MFG. CO., Tulsa, Okla.

## *GASO PUMPS*

## *for oil field uses*

Say you saw it in The Oil Weekly

# WILDCATS FROM ALL SECTIONS

## Semi-Wildcat in Northwestern Part of Clay County, Texas, Swabs 25 Barrels

**Wichita Falls, Texas, Oct 15.**—The semi-wildcat test of the Knox Finley Development Company on the Scott & Ramsdell land in northwestern part of Clay county, about 8 miles northeast of Wichita Falls, swabbed at rate of 25 barrels daily when an oil sand at 1135-53 feet was tested out last week, and preparations are being made to run tubing and place the well on the pump. It is located on a 60-acre tract in Block 3, W. Wyatts Sub-Division of Pratts Pasture lands, and drilled through oil sands at 274-92 feet and at 1928-30 feet without making a test. A spudding machine is now drilling below 100 feet in the southeast corner of block 3 to test out the 274-92 foot pay. Interest in this several months ago when the Knox Finley Development Company's Saner & Lomax 1 tested good for a 30-barrel pumper of 40 gravity oil from sand at 1119-27 feet.

The deep lime pay uncovered in Eastern Clay county on the Carl M. Worsham ranch last December by the Gulf Production Company good for an initial flow of 200 barrels of 42.3 gravity oil at 3394-3446 feet, and still producing around 100 barrels daily on the pump, has not been picked up by W. H. Dunning and associates' test on the K. N. Hapgood farm, located two miles to the northwest, after drilling to 3540 feet. Although the Gulf Company's producer has paid for itself more than once, efforts to obtain another producer from the lime pay have not proven successful to date. Last August Gulf's second test on the Worsham ranch, located 4000 feet east and slightly north of the discovery well, was given up as a dry hole after a shot with total depth of 3885 feet. Further north of this dry hole, Montgomery et al completed a dry hole on the Turner farm. The test being drilled by Dunning and associates is located in southwest corner of block 62, Marion county school lands, and has not picked up the lime formation furnishing production for the discoery well. It was reported drilling in shale formation early this week, after setting 6⅝-inch casing at 3131 feet, and considerably deeper than where production was expected.

## Log of Galveston Test Shows Sand to 4420 Ft.

**Galveston, Texas, Oct. 15.**—Packed sand carrying considerable water with an occasional shale break is the formation underlying Galveston Island to a depth of 4420 feet, according to a log of the wildcat test being drilled by the Magnolia Petroleum Company with rotary equipment on the L. M. Cash land, near the "S" pike and down the island from Galveston. The test is one of the deepest and closest drilled to the Gulf of Mexico, and reveals that Galveston Island was formed by the work of the waves from the gulf. Although the rotary is being used, drilling is proceeding cautiously while cores are taken of all formations offering promise of either oil or gas. Early in September, while drilling at 3750 feet, traces of oil were encountered in the sand. Casing was set and cemented, but the hole filled with water when the plug was drilled. Magnolia officials have announced that the hole will be carried as deep as possible.

## Has Oil Well in Gas District of Illinois

**Tulsa, Okla., Oct. 10.**—The Mid-Egypt Oil and Gas Company's Geberdine 4, in Jackson County, Southern Illinois, was shot this week at a depth of 865 feet and will probably make a 15-barrel well pumper, according to A. L. Pratt, superintendent of the company, who was in Tulsa this week attending the International Exposition. This company has been drilling in this section for six years and has 18 gas wells in this general vicinity. However, No. 4, the first oil well, is about a three-quarter mile extension to the southwest.

## *Central West Texas Wildcats*

### COMPLETIONS

| Company, Well, Location— | Initial Production Bbls. | Depth |
|---|---|---|
| **Brown County—** | | |
| Chas. Hart & Sons et al E. F. George 1 | * | 3435 |
| **Mitchell County—** | | |
| The California Co.'s T. C. Richardson 1 | * | 4620 |

### DRILLING REPORT

**BROWN COUNTY**—Carlton-Tippett et al's O. B. Fomby 1, junked hole, td 1315 ft. Joe Cullinan et al's G. W. Pickett 1, sd 1135 ft. Crabb, McNeil & Bryant's B. W. McDonough 2, lcn. Canyon Oil & Gas Co. and T. B. Slick's Mrs. Ellaberry 2, dr 2945 ft. Gillette et al's Prather 3, dr 900 ft. Harris et al's Jack Smith 1, dr 1230 ft. Leonard et al's Prather 2, sd 2265 ft. McCamey et al's Armstrong 1, rig. Ben O. Madison's Jack Smith 1, sd 705 ft. Omaha Southern Oil Co.'s G. B. Gaines 2, sd repairs 1690 ft. Pennant Oil & Gas Co.'s W. B. Strickland 1, dr 2450 ft. Price et al's Blair 2, sd 2910 ft. T. B. Slick & Phillips Pet. Co.'s Newton-Harris 2, making 20 bbls oil after setting tubing and packer, td 2960 ft. Scott & Anderson's W. R. Chambers 1, sd 2900 ft. Sindorf Bros.' G. B. Gaines 1, sd 2280 ft.

**HOOD COUNTY**—Hardy Sitton (was Iowa Bankers Oil Co.) I. A. Rylee 1, sd 570 ft. Burleson Oil Co.,'s D. W. Campbell 1, sd 2800 ft.

**PALO PINTO COUNTY** — Bankhead & Wheeler's Bankhead 1, spudding. Buckeye Pipe & Supply Co.'s Morgan 1, plugging to abn 4035 ft. S. C. Cunningham et al's B. M. Pooer 1, dr 3100 ft. Clark & Burch's Mrs. L. F. Conklin 1, sd for 5-in cas 3900 ft. Jack Dalton Oil Co.'s R. S. Dalton 2, sd 4025 ft; Dalton 5, co after running cas 3410 ft. Danielson Trustee's (S. E. J. Cox) Arch Hemphill 1, sd 3755 ft. Gibson, Sinclair & Strong's J. T. Holt 1, sd 4260 ft. Jones et al's Jones 1, rigged up. Ligon & Sheppard's Carter 1, sd 3310 ft. Mutual Oil Co.'s Robinson 1, making 10 bbls oil after shot 1495-1500 ft. S. W. Manning et al's R. Hitson 1, sd 3640 ft. Nelson Oil Co.'s Finch 2, sd 4105 ft. Pender Production Co.'s L. C. Slemmons 1, running 5-in cas 3585 ft. Phillips & Graham's Caudill 1, dr 2350 ft. Republic Production Co.'s Stuart Bros. 1, sd 1615 ft. Simms Oil Co.'s Costello 1, rig. Skelly Oil Co.'s W. L. Costello 1, sd 2505 ft. Scott & McClure's River Bed 1, run 5-in cas 3520 ft; River Bed 2, rigged up. H. L. Singleton et al's W. Holt 1, sd 1665 ft. Texas Pacific Coal & Oil Co.'s Stuart Bros. 144, sd for pipe line connections 1630 ft. R. B. Thomas' Fee 1, dr up bailer 3340 ft. D. A. Upham Gas Co.'s F. M. Watson 3, dr 3430 ft. Youkan Oil & Gas Co.'s Seaman 1, sd 3965 ft. Zada Belle Oil Co.'s G. N. Weldon 1, sd 2575 ft.

**TARRANT COUNTY**—P. L. Tippett & Sons' Joe Day Ranch 1, dr 815 ft.

**BORDEN COUNTY**—C. W. Jones Drilling Co.'s F. M. Long 2, pul cas to abn 3060 ft. Kesselman Development Co.'s A. J. Long 1, rigged up.

**BREWSTER COUNTY**—Arco Development Co.'s H. L. Kokernot 1, fsh tools 3765 ft. Brewster Oil Co.'s H. L. Kokernot 1, dr 2470 ft. Portland Oil Synd.'s State 1, dr 2480 ft. Nine Points Oil Co.'s Peralto & Finnell 1, sd 1570 ft. Marathon Oil Co.'s Nigger Creek-Cage 1, sd 2350 ft; Wilson 2, sd 4000 ft.

**COKE COUNTY**—Ace Oil Co.'s W. O. Locke 1, spd and sd. Mexia-Equpitable Oil Co.'s W. J. Hodges 1, sd for cas 2505 ft.

**CONCHO COUNTY**—W. O. Schultz Oil Co.'s Schultz 1, sd 3225 ft. Signal Oil Co.'s Sam Waring 1, ur cas 2740 ft. Dome Oil Co.'s Mrs. C. M. Hartgrove 1, lcn.

**CRANE COUNTY** — Texas-Mexia Drilling Co.'s W. M. Waddell 1, spd and sd.

**CROCKETT COUNTY** — Crockett Drilling Co.'s J. M. Shannon 1, dr 700 ft; Shannon 2, lcn; Robt. Massey 1, sd for fuel 280 ft. Enders-Smith & Co.'s University 1, rigging up.

**CULBERSON COUNTY** — David Flood's McAlpine & Grisham 1, using diamond core drill, dr 3560 ft. J. D. Wesner's Mack Sayles 1, sd 3105 ft. T. W. Owens' Jones 2, dr 3150 ft. Consolidated Sulphur Co.'s Johnson 1, sd 115 ft. G. W. Gossert's Sayles 1, sd 460 ft.

**DAWSON COUNTY**—Lamesa Oil Co.'s John Burns 1, sd 2155 ft.

**ECTOR COUNTY**—Farmers Oil Co.'s Andy Newham 1, dr 1200 ft.

**EL PASO COUNTY**—Burns & Knight's Fee 1, sd 1495 ft; Fee 4, dr 1030 ft.

**FISHER COUNTY**—Pyron Oil Co.'s J. S. McCall 1, sd 2135 ft.

**GLASSCOCK COUNTY** — Cushing Ranch Drilling Assn.'s W. F. Cushing 1, sd after shot 4515 ft; W. H. Sparkman 1, sd 1950 ft. General Oil Co.'s L. S. McDowell 4, casing off junk, td 3785 ft. Associated Ref. & Prod. Co.'s C. I. Brunson 1, sd 2935 ft.

**HUDSPETH COUNTY**—Boole Oil Assn.'s Gardner et al 1, fsh 1405 ft. Hueco Basin Oil Co.'s University 1, sd 2535 ft.

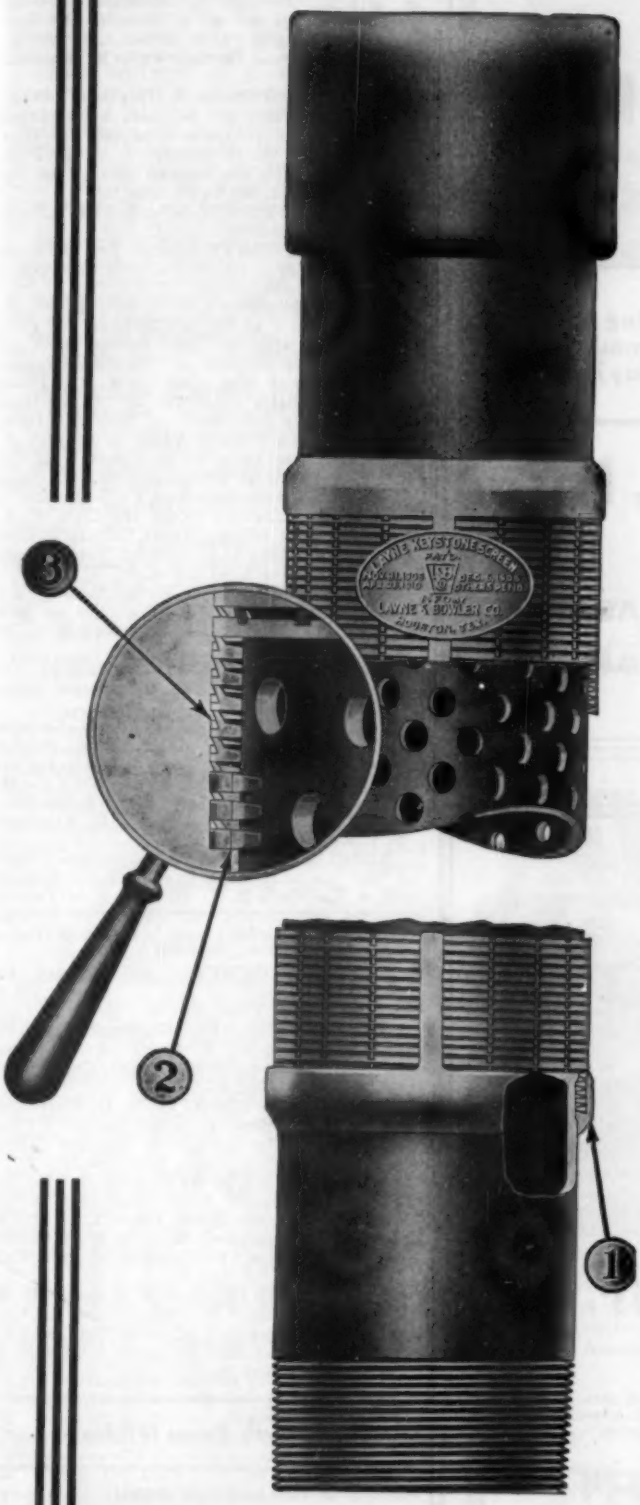
**HOWARD COUNTY**—Big Springs Oil Co.'s Mabel O. Quinn 1, sd 3640 ft.

**JONES COUNTY**—Anson Oil & Dev. Co.'s C. B. Brown 1, sd 1855 ft. C-H Oil & Development Co.'s J. A. Cullom 1, sd 3160 ft.

**LOVING COUNTY**—Ramsey Prod. Co.'s Russell 1, fsh cas 4485 ft; Russell 2, sd 815 ft.

**MARTIN COUNTY**—Cox Realization Co.'s George Walcott 1, sd 2065 ft.

**MITCHELL COUNTY**—California Co.'s E.




# The Proper Screen

has a "whole lot" to do with the life and successful operation of a producing well.

Safeguard your investment—get the greatest amount of production. Use

THE LAYNE

Patent
Keystone Wire-Wrapped

# STRAINER

Ask any one of the hundreds of companies throughout the Southwest WHY they ALWAYS use the Layne screen.

*Write, Wire, or Phone Your Requirements*

THE LAYNE & BOWLER COMPANY
HOUSTON, TEXAS FACTORIES MEMPHIS, TENNESSEE

Say you saw it in The Oil Weekly

# A DEPENDABLE SOURCE

—OF—

# Producing and Refining Equipment

We solicit inquiries for all kinds of producing and refining equipment. Quotations will be promptly sent. Get "United" prices before buying.

## United Iron Works, Inc.

GENERAL OFFICES

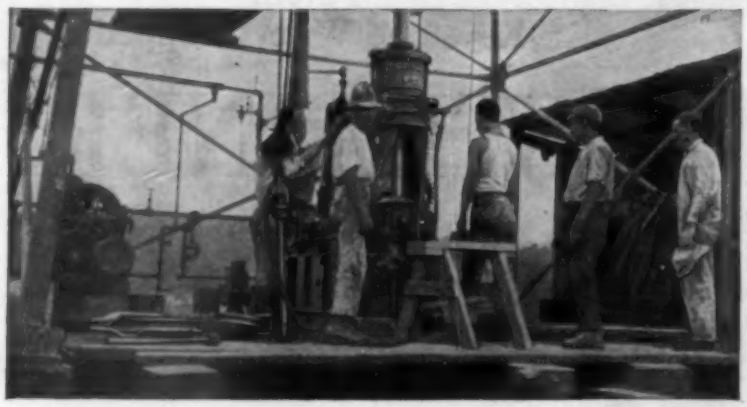
KANSAS CITY, MO.

TULSA, OKLA. —SALES OFFICES— DALLAS, TEX.

*When better construction is offered, it will be "United" Design*

"UNITED" IRON WORKS INC. UNITED FOR SERVICE





# Diamond Drilling for Oil

## *Has Arrived*

When the Panuco-Boston Company brought in a well with the Sullivan Diamond Drill in the Tampico field in December, 1921, diamond drilling for oil became a proven success—no longer an experiment.

Today Sullivan Diamond Drills are in successful oil field use in Mexico, Texas, Oklahoma, California, Colorado, Montana, Santo Domingo, Algeria, etc.

In all formations and in all varieties of oil field drilling, the diamond drill has proved its value.

In furnishing geological data, in low cost for outfit, transportation, power and labor, in drilling speed, in adaptability to drilling conditions,

*Sullivan Diamond Drills*
stand foremost

*Ask for Bulletin 4269-O*

The cut shows a well in the Tampico district just after coming in with a flow of 15,000 bbls. Note absence of oil on the platform.

## SULLIVAN MACHINERY COMPANY

West. Indem. Bldg., DALLAS — 122 So. Michigan Ave. CHICAGO — Garber, Okla Tulsa, Okla.


Morrison 1, cemented cas 3925 ft. Colorado-Texas Petroleum Co.'s W. L. Foster 2, dr by bit 2625 ft. Fensland Oil Co.'s W. H. Badgett 1, dr 2150 ft. R. H. Looney et al's L. C. Le-Sure 2, lcn. C. F. Kelsey et al's W. H. Badgett 1, estimated at 50 bbl pumper, sd with hole nearly full oil, td 3104 ft. Petroleum Operators Assn.'s E. Morrison 1, rig. Henry Riley et al's E. Morrison 1, estimated 15 bbl pumper, sd 3030 ft. S. A. Sloan et al's Sam Smart 2, rigging up; J. H. O'Neil 1, dr 2900 ft. Underwriters Prod. & Ref. Co.'s E. Morrison 5, sd 2755 ft.

**PECOS COUNTY**—W. S. Troy et al's H. L. Johnson 1, sd 3520 ft. Southern States Lease & Prod. Co.'s J. M. Odem 1, sd 1305 ft. Oregon-Texas Oil Co.'s Turney 1, sd 3025 ft. Trans-Pecos Oil Co.'s Bennett et al 1, sr cas 710 ft; Turney 1, fsh bailer 1300 ft.

**PRESIDIO COUNTY**—Claude Byler's Toole Estate 1, spd and sd.

**REAGAN COUNTY**—Texon Oil & Land Co.'s University 3, fsh tools 2760 ft; University 4, sd for fsh tools 530 ft.

**REEVES COUNTY**—W. S. Troy et al's H. G. Kersheusen 1, sd 415 ft. Dixieland Oil Co.'s Oates 2, sd 4500 ft. Bell Reeves Oil Co.'s Findley et al 1, sd 1540 ft. El Paso-Saragosa Oil Co.'s George Wirt 1, sd 540 ft. Los Pecos Oil Synd.'s Oates 2, sd 725 ft. Parker-Hancock Oil Co.'s Johnson 1, sd 1930 ft. Pecos Angeles Oil Co.'s Pecos Valley 1, sd 1405 ft. Willoughby Pet. Co.'s W. D. Cowan 1, sd 610 ft. Rodenbaugh & O'Connell's W. D. Casey 1, sd 845 ft. Pico Petroleum Co.'s Johnson 1, sd 1930 ft. Hawkeye Pecos Oil Co.'s T. P. Land Co. 1, sd 825 ft. Texas Drilling & Dev. Co.'s Pecos Valley 1, sd 1105 ft. Tatum Lease Synd.'s Burchard 1, sd 155 ft.

**RUNNELS COUNTY**—F. W. Hunter (was Safety First Oil Co.) Will Allen 1, ur cas 3815 ft. Russell Production Co.'s Russell 2, sd 2500 ft.

**SCHLEICHER COUNTY** — Paragon Oil Co.'s B. M. Boyd 1, sd at contract depth, 3000 ft.

**SCURRY COUNTY**—The Loutex Corporation's J. J. Moore 1, dr 3565 ft. Camp Springs Oil & Gas Co.'s W. R. Quinn 1, sd for 8-in cas 2035 ft. Hermleigh Oil & Gas Co.'s J. W. Burris 1, sd 2965 ft. Stanton Oil & Gas Co.'s J. W. Riley 1, sd 3505 ft. C. C. Brandon's J. A. Kemp 1, lcn.

**STERLING COUNTY**—Co-operative Lease & Dev. Co.'s Douthitt 1, sd 1800 ft. Chicago Oil & Gas Co.'s B. C. Durham 1, sd 1365 ft. Fidelity Oil Co.'s C. R. Hull 1, sd 1215 ft. Concho River Drilling Assn.'s George McIntyre 1, sd 505 ft.

**TAYLOR COUNTY** — Abilene-Texas Oil Co.'s J. C. High 1, sd 2135 ft. Sanger Oil & Ref. Co.'s Hall 1, sd 2865 ft.

**TERRELL COUNTY**—Southwest Texas Oil & Gas Co.'s S. W. T. No. 1, sd for repairs 3400 ft. Pittsburg-Western Oil Co.'s Chas. Downey 1, sd 1260 ft.

**TOM GREEN COUNTY**—W. O. Kimmell et al's Jemeyson Bros. 1, sd for cas 185 ft; Lee Wright 1, sd for cas 180 ft. Ranger Investment & Dev. Co.'s Harris 1, ur cas 3115 ft.

**VAL VERDE COUNTY**—East Del Rio Oil Co.'s E. F. Russell 1, fsh tools 1600 ft. G. Cook et al's Bedell Moore Estate 1, sd 1255 ft. Independent Operators' W. E. & W. F. Whitehead 1, sd 1800 ft. Reclamation Oil Prod. Co.'s J. B. Moore 1, sd 2630 ft.

**WARD COUNTY**—Cook & O'Brien's G. W. O'Brien 1, sd 1175 ft. Trans-Pecos Oil Co.'s Longnecker 1, sd 1765 ft. rthur Pitts Oil Co.'s Soda Lake 1, sd 2205 ft; River 1, sd 4675 ft; Valley 1, sd 1685 ft.

## *North Texas Wildcats*

### COMPLETIONS

| Company, Well, Location | Initial Production Bbls. | Depth |
|---|---|---|
| **Clay County—** | | |
| Clark & Cowden J. F. Turner 1..... | * | 3705 |
| J. O'Neill J. F. Kuykendall 1..... | * | 2025 |
| **Jack County—** | | |
| J. M. Dunn's T. Humphries 1..... | * | 3535 |
| **Wilbarger Coun'y—** | | |
| Electra Gulf Oil Co. J. N. King 1.. | * | 2410 |

| Company, Well, Location— | Initial Production Bbls. | Depth |
|---|---|---|
| W. Franklin W. O. Womach 1..... | * | 2205 |
| Pigg & Murchison M. F. Forrister 1 | * | 2200 |

## DRILLING REPORT

(Note—This report does not include tests that have been shut down indefinitely.)

**BAYLOR COUNTY**—Bob Waggoner's W. H. Portwood 1, sd for cas to test sand at 1430 ft. Wurt et al's Porter Ranch 1, sd 1010 ft.

**CLAY COUNTY**—E. C. D'Yarmett's Carpenter 1, dr 1715 ft. Dunning Oil Co.'s K. N. Hapgood 1, sd 3380 ft. Gulf Prod. Co.'s H. Boddy 1, dr 2020 ft. Knox & Finley Dev. Co.'s Scott 1, cas trouble 1150 ft. Lone Star Gas Co.'s Edrington 7, dr 2100 ft. Nebraska Oil & Gas Co.'s W. H. Myers 1, sd 3280 ft. Nix-Moore Oil Co.'s F. M. Hull 1, dr sand 1200 ft. Ross & Webb's J. H. Stine 1, sd 925 ft.

**COOKE COUNTY**—Big Indian Oil Co.'s B. W. Davis 1, dr 2550 ft. Red River Drilling Co.'s Whaley-Jones 1, fsh 1200 ft.

**DENTON COUNTY**—Hill Crest Oil & Dev. Co.'s J. H. Rayzor 1, sd 1350 ft.

**GRAYSON COUNTY**—Zee Tex Oil & Dev. Co.'s G. W. Cannon 2, dr 2875 ft; Griffin 1, sd 2200 ft.

**HARDEMAN COUNTY**—Frizell Oil Co.'s M. S. Winbury 1, sd 3040 ft.

**JACK COUNTY**—Duncan et al's M. A. Woodward 1, ur 725 ft.

**KING COUNTY**—Banks Oil Co.'s J. R. Hailey 1, std 1630 ft.

**KNOX COUNTY**—White Oil Corp.'s Ward Ranch 1, sd 2800 ft.

**MONTAGUE COUNTY**—Amerada Oil Co.'s R. D. Beasley 1, dr 2560 ft. Bowie Chief Oil Co. et al's C. H. Boedeker 1, sd 2725 ft. Gulf Prod. Co.'s T. Benton 1, dr 1625 ft. Mascho Oil Co.'s J. L. Howard 1, fsh 1550 ft. J. A. Sheppard's L. Crenshaw 1-A, ur 1590 ft; L. Crenshaw 1-B, sd 1225 ft. Spencer & D'Yarmett's Wilson 1, sd 1080 ft. The Texas Co.'s Gist 1-A, dr 680 ft.

**THROCKMORTON COUNTY**—Ashcraft et al's Polk County School land 1, dr 500 ft. Monroe Prod. Co.'s R. S. Ray 1, dr 75 ft. J. H. Richardson et al's Reynolds Cattle Co. 1, sd 640 ft.

**WILBARGER COUNTY**—Byrne & Co.'s B. N. Cordor 1, sd 1960 ft. Herrington & Robinson's McCaleb 1, ur 1950 ft. Noble Oil Co.'s W. T. Waggoner 1, dr 875 ft. South Vernon Oil Co.'s W. H. Stephens 1, dr 1300 ft.

## *Texas Panhandle Wildcats*

(Note—The drilling report below does not show wells that are shut down indefinitely.)

**ARMSTRONG COUNTY**—Magnolia Pet. Co.'s "J. A." Ranch 1, dr 1100 ft.

**CARSON COUNTY**—Culberson Bros.' V. B. Armstrong 1, sd 175 ft. Gulf Prod. Co.'s S. B. Burnett 3, lubricating off gas, td 3035 ft. Humphreys Oil Co.'s J. M. Sandford 1, dr by tools, td 2535 ft. W. W. Silk et al's S. B. Burnett 3, lcn. The Texas Co.'s Mary C. Burnett 1, sd 40 ft; S. B. Burnett 3, rigging up; S. B. Burnett 2, ur 3060 ft. Tipton et al's McConnell 1, dr 3015 ft.

**GRAY COUNTY**—W. H. Holmes et al's J. S. Morse 1, ur 900 ft. The Texas Co.'s G. H. Saunders 1, running 10-inch cas 1480 ft.

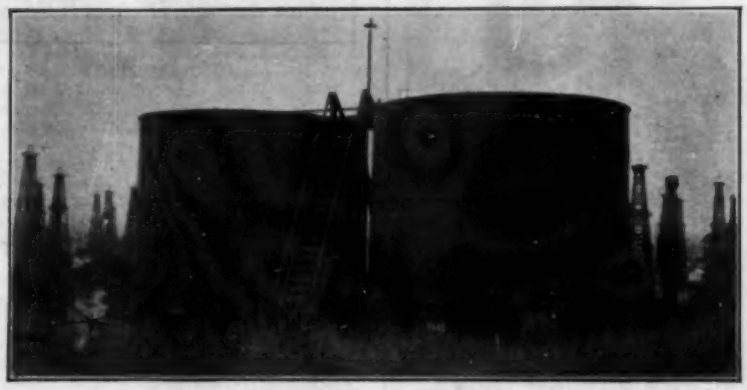
**HANSFORD COUNTY**—A. G. Higgins et al's C. O. Hitch 1, sd 50 ft.

**HEMPHILL COUNTY**—Piney Oil Co.'s Hopkins 1, dr 2410 ft.

**HUTCHINSON COUNTY**—Coline Oil Co.'s R. Sandford 1, dr 3190 ft. Emeral Oil Co.'s T. Coble 1, sd 200 ft. Humphreys Oil Co.'s Johnson Bros. 1, rebuilding dk, td 2588 ft. Montgomery Oil Co.'s Johnson Bros. 1, ur 820 ft. Plains Oil Co.'s J. F. Weatherly 1, plugging back, td 3260 ft. Producers & Refiners Co.'s L. Bivens 1-B, dr 160 ft. Whittaker & Newbold's Johnson 1, dk.

**POTTER COUNTY**—Producers & Refiners Co.'s L. Bivens 1-A, dr 840 ft; Bivens 2-A, dr 600 ft; Masterson 2, dr 2540 ft.

**WHEELER COUNTY**—Barker & Coffer's Hiltbrunner 1, lcn. Mid-Continent Oil Synd.'s Ember 1, lcn. Roy W. Schenck et al's C. C. George 1, sd 1985 ft. Skelly Oil Co.'s Davis Bros. 1, sd 2240 ft. H. S. Tyrell et al's F. E. Sheldon 1, sd 290 ft. J. Whittington's Williams & Laycock 1, lubricating off gas, td 2100 ft.

1500 Barrel Maloneys, California District

**Maloney Tank Value**

saves for you with full Tight Deck Equipment including tight Manholes and Thief Hatches, Lead-in Flanges and Vacuum Pressure Valves, eliminating evaporation and air circulation, therefore no vapor losses.

**Sizes, 60-Bbl. to 3000-Bbl., inclusive**

Manufactured by

MALONEY TANK MANUFACTURING CO.

Tulsa, U. S. A.

**EVERYTHING FOR THE OIL WELL**

Operators in the oil fields in this territory have found that the many facilities we maintain assure them at all times

**A DEPENDABLE SOURCE OF SUPPLY**

Peden supplies have had a large part in the development of the oil fields of Texas. With our years of experience in meeting the requirements of these fields we are in a position to serve best. Send us your orders or write today for prices and information.

*"We Ship Quick"*

The Largest Supply House in the Southwest

**PEDEN IRON & STEEL CO.**

HOUSTON SAN ANTONIO
FT. WORTH SHREVEPORT

# This Bank

WHOSE history is inseperably interwoven with that of oil production in the South,

KEEPS in touch with the oil situation and deems this an especially fitting time to encourage thrift among Oil Men: both producers and laborers.

OVERPRODUCTION must entail either lower prices for oil products, or a holding-over of surplus stock.

A SAVINGS ACCOUNT opened with us now, may be the means of tiding you over weeks or months of stringency.

*A Bank of Personal Service*

**Commercial National Bank**

**Shreveport, La.**

## *San Antonio District Wildcats*

**COMPLETION**

| Company, Well, Location— | Initial Production Bbls. | Depth |
|---|---|---|
| **McMullen County—** | | |
| G. M. Oil Co. Cox 1 | 150 | 763 |

**DRILLING REPORT**

**ATASCOSA COUNTY**—Atascosa Oil & Gas Co.'s Peelei 1, dr. DeLange-Eiser Co.'s Tom 2, fsh 2800 ft.

**BEXAR COUNTY** — Transcontinental Oil Co.'s Torzell 1, dr.

**DUVAL COUNTY**—Abercrombie et al's Benavides 1, sd. Queen Oil Co.'s Dinn 1, dr. Flornoy & Givens Canales 1, dr. Humble Oil & Ref. Co.'s Singer 1, dr 1140 ft; Walsh 2, dr 2705 ft. Mar-Tex Oil Co.'s Ridder 1, dr.

**JIM HOGG COUNTY**—Forest Miracle Oil Co.'s Holbein 1, sd. Las Animas Oil Co.'s 1 Holbein, dr; 3, dk. Miami-Balderas Oil Co.'s No. 1, dr. Revere Oil Co.'s Davenport 1, dr. Diamond S. Oil Co.'s Doering 1, dr below 3080 ft. Trussle-Memphis Zapata's Thompson 2, casing set. Homer & Tyson's Tyson 1, recementing. Weber Oil Co.'s Holbein 3, sd 2730 ft. Fresno Oil Co.'s Hinnant 1, sd at 1670 ft for water. Caprock Oil Assn.'s Nolkemper 1, casing set. Humble Oil Assn.'s East 1, sd for fuel.

**LIVE OAK COUNTY**—Grubstake Investment Assn.'s Nichols 2, dk blown down, erecting new one; Brown 2, dk. Lobo Oil Co.'s Reagan 5, dr. Harkey Oil Corp.'s No. 1 Herring, dr stem in hole at 410 ft, 2,000,000 cu ft gasser.

**MAVERICK COUNTY**—D. A. Buris' Paula 1, sd. Maverick-Kinney Oil Co.'s 1, sd. Eagle Pass Oil Co.'s 1, sd; 2, dr. Southern States' Indio 1, dr.

**MEDINA COUNTY**—Mayor Wheeless' Jose de la Roche 1, dr. Ina Oil Co.'s Durst 2, reported pumping; Durst 1, dr deeper. California-Medina Oil Assn.'s Rothe 1, setting 8¼-in casing at 1960 ft. McBride Drilling Co.'s Adams 1, sur 13, dr 160 ft. Sherman Haught's 1, sur 459, dr 140 ft. Wooly Hill Oil & Gas Co.'s Martin 1, sd. Fritz Fuch's 1, sur 33, rigging up. Medina Oil Co.'s 1 (Medina school land), sur 10-12, dr. J. F. Carlis Schmidt 1, dk. O'Bryan et al Nixon 1, sur 14½, dr. Smith & Donaldson's Wilson 1, sd for casing at 870 ft. Charles Jackson et al's Adams 1, sur 12, lcn. Jacob Huff, Wolff & Ross Louis Moefield 1, sur 532, testing at 310 ft.

**McMULLEN COUNTY**—Circle Y Drilling Co.'s Martin 1, sd 1681 ft. Pioneers Pro. Co.'s Lowe 1, dr. Grubstake Investment Assn.'s Fisher 2, dr; Lark 2, dr; 3, setting casing. Burt Oil Co.'s Calliham 1, dr below 900 ft. San Balt Pet. Co.'s Ceb Martin 1, dr below 3000 ft. Pioneer Consolidated Pet. Co.'s Martin 1, dr 1681 ft. Lightfoot & Hill's Aycock 1, casing set at 806 ft, dr in. Laughter & Naiper's Calliham 1, cemented; Stitz 1, lcn. Dilliham & Thorman's Calliham 1, dr. Frio Oil Co.'s Calliham 2, dk.

**San Patricio County**—Aransas Pass Live Oak Ridge Oil Co.'s Sigmund 3, dr. Rockport Oil Co.'s 2, dr. San Patricio Dev. Co.'s Hattie 2, sd. White Point Prod. Co.'s Rachal 1, sd.

## *Coastal Wildcats*

**COMPLETIONS**

| Company, Well, Location— | Initial Production Bbls. | Depth |
|---|---|---|
| **Duval County—** | | |
| The Humble Oil & Refg. Co. Walsh 2 | * | .... |
| **Matagorda County—** | | |
| Rycade Oil Co. Hudson 1, at Markham | * | 3004 |

**DRILLING REPORT**

**AUSTIN COUNTY**—Texas Co.'s Thielman 2, dr 3445 ft in shale.

**DUVAL COUNTY**—Humble Oil & Refg. Co.'s Singer 5, dr 1550 ft.

# Unseen Quality

The material used in Steelex Balls and Seats and Bronzex Balls and Seats is the big factor in their giving you satisfactory service.

Correct, accurate workmanship is essential, but what you can not see—the Quality of Material—is the basis of extraordinary products.

Steelex, packed in the Red Box, and Bronzex, packed in the Yellow Box, are always uniform quality—accurately machined — and guaranteed ground tight

**If You Forget the Name Remember the Package**

**The Charles N. Hough Manufacturing Co.**

"Where the Reliable Oil Well Supplies Come From"

**Franklin, Penna.**

PUMPING EQUIPMENT

**HARRIS COUNTY**—Texas Exploration Co.'s Warren 13, standing; Warren 15, dk.

**JACKSON COUNTY**—Vanderbilt Pet. Co.'s Seliner 1, setting surface cas.

**KLEBURG COUNTY**—Humble Oil & Refg. Co.'s Kissman 1, resetting cas 3100 ft

**MATAGORDA COUNTY** — Rycade Oil Corp.'s Myers 1, dr 2060 ft in gumbo.

**MONTGOMERY COUNTY** — Geo. M. Kuhn's (formerly Melos Oil Co.'s) Knox 1, r to bottom, total depth 3490 ft.

## *Oklahoma Wildcats*

**ATOKA COUNTY**—McPhearson et al's Wild 1, SWc NE NW 7-2-9, dr 2550 ft. Hanson et al's Dabney 1, C SE NW 17-4-11, rig.

**BEAVER COUNTY**—Empire G. & F. Co.'s Brown 1, SWc NE 16-1-20.

**BECKHAM COUNTY**—Bollion Oil Company's Green 1, C SW SW 34-10-24, sd 1200 ft. Ship et al's Githens 1, SEc NW 14-9-26, dr 2720 ft. Ship-Nash et al's 1, SEc NW 35-9-26, sd 2105 ft. J. A. Pringle's Burkholder 1, C NE NE 6-9-24, sd 3000 ft. Mag. Pet. Co.'s Ezzell 1, NEc 36-9-24, dr out plugs, 2290 ft. Turman Oil Co.'s 1, SWc NE 4-8-22, fsh 2445 ft. Kadane et al's McGee 1, NEc SE 25-8-22, sd 1027 ft, show of gas.

**BLAINE COUNTY**—Okemo Oil Co.'s Edlemaier 1, 21-15-10, dr 430 ft.

**BRYAN COUNTY**—Lyon et al's Coombs 1, SEc SW NW NE 11-6-9, sd 1200 ft.

**CLEVELAND COUNTY**—Garr Oil Co.'s Holland 1, NEc SE 31-10-4, cs 2550 ft.

**COAL COUNTY**—Basic Oil Co.'s Heck 1, SEc 18-2-9, rig. Bearman et al's Payte 1, SWc NW NE 34-2-9, co 2780 ft. Guy Vaughn's Downwood 1, NWc SW 16-2-10, rig. McPhearson et al's Jamison 1, NWc NE NE SW 24-1-8, sd 160 ft.

**GRANT COUNTY**—Ossenzeck et al's Hoffman 1, SEc 23-29-3, sd 1515 ft. Marland Oil Co.'s Zich 1, SWc NE 7-28-3, r 2661 ft. Walters O. & G. Co.'s Shephard 1, SWc NE 25-27-7, fsh cas 3060 ft. Embry et al's Edward 1, C SE SE NW 20-26-4, sd 780 ft. Alcorn Oil Co.'s Hubbard 1, C S L NW 12-26-2, dr 1942 ft.

**GREER COUNTY**—Western Natural Gas Co.'s De Armond 1, NWc SW 23-7-23, sd 1700 ft.

**HUGHES COUNTY**—Flesher Pet. Co.'s Smith 1, NWc NE NW 8-9-12, sd 3150 ft. Independent Oil Co.'s Alexander 1, NEc NW 23-8-10, dr 2175 ft. W. J. Thurber's Foster 1, SEc SW SE 5-7-8, tools in. Producers & Refiners' Marcoma 1, SEc NW NE 14-7-8, crooked hole 1100 ft. Kingwood Pet. Co.'s Burnett 1, NWc NE SW 7-7-10, H. F. W., dr 3765 ft. Paraffin Oil Co.'s Love 1, NEc SE NE, sd 1970 ft.

**JACKSON COUNTY**—Douglas Oil Co.'s Jackson 1, NWc SW SE 20-3-20, dr 2205 ft. J. D. Wade's 1, C SW NW 36-2-23, dr 860 ft.

**JEFFERSON COUNTY**—Empire G. & F. Co.'s Price 2, NEc SW SE 23-3-7, dr 3429 ft. Magnolia Pet. Co.'s Peck 1, C NW SW NW 4-3-6, dr 730 ft. Humble Oil & Refining Co.'s Lewis 1, NEc SE SE 16-6-7, dr 1204 ft.

**KIOWA COUNTY**—Connor et al's 2, NEc NW NW 34-7-16, sd for 10-in at 1125 ft.

**LINCOLN COUNTY**—Heinze et al's Horton 1, SWc NE 7-14-4, sd 3150 ft. Sun Ray Co.'s Gallagher 1, C N L SE SE 18-13-5, skidding rig.

**LOGAN COUNTY**—Buford-Brim Oil Co.'s Newman 1, NWc NE 32-19-3, dr 2475 ft. Beatty et al's Lewis 1, SEc 21-19-1.

**LOVE COUNTY**—Wickenhiser et al's Beal 1, NEc SE NW 13-5-3, sd 2400 ft. Cook Oil Co.'s Westheimer 1, C SE SE NW 4-5-3, dr 2355 ft. Reid-Davenport Oil Co.'s Gray 1, NEc 9-7-1, dr 2910 ft.

**McCLAIN COUNTY**—Day Oil Co.'s Ball 1, SEc NW NE NE 9-5-3.

**McCURTAIN COUNTY** — Fred Ptak's Wilson 1, NWc SE 15-8-25, sd 2700 ft.

**MARSHALL COUNTY**—Humble O. & R. Co.'s Scot. 1, SEc NE SW 22-6-4, dr 1760 ft. Magnolia Pet. Co.'s Everett 1, C NE NE SE 36-7-5, dr 550 ft.

**OKLAHOMA COUNTY**—W. R. Ramsey's 1, SEc 8-12-1, dr 3590 ft. Firestone Oil Co.'s School 1, NWc SE 36-11-3, dr 3215 ft.

**PITTSBURGH COUNTY**—Paraffin Oil Co.'s Pratt 1, NWc SE NE 13-7-12, sd 2000 ft.

**PONTOTOC COUNTY**—Harper et al's Bener 1, NWc SE SE 19-5-7, rig. Smith et al's Norris 1, SWc SE 34-4-6, sd 1580 ft, sw.

**POTTAWATOMIE COUNTY** — Ossie Oil Co.'s Howell 1, SWc NE 13-10-2, fsh lugs 2190 ft. Magnolia Pet. Co.'s Bredinberg 1, C SE SW NW 18-7-5, dr 2250 ft. Dave Detrick's McGahey 1, SEc NW 10-6-2, dr 2630 ft.

**HUGHES COUNTY**—Maxwell et al's Mongo 1, NWc NE 25-6-6, fsh 2070 ft; Charty 1, C NE NW 33-6-6, rig. Link Oil Company's Carolina 1, C SE NW 14-6-7, sd for repairs 1790 ft. Maxwell & Kawfield's Dindy 1, C SW SW 20-6-7, dr 1120 ft. Middle States Oil Company's 1, NWc 13-6-11, dr 2510 ft.

**SEMINOLE COUNTY**—H. Taylor's Johns 1, SEc NE 34-9-6, sd 2200 ft. Independent Oil Co.'s Ahaisse 1, NEc SW 15-9-8, dr 2200 ft. W. E. Phillips et al's Davis 1, SEc NE NE 28-9-8, fsh 1260 ft. Ossenbeck et al's Davis 1, C SW NE 10-8-7, dry sand 2238-45 ft, black shale 3251-3294 ft, swabbed 100 bbls first day and 67 bbls second day; water sand 3294 ft, black slate 3297-3312 ft, run 115-ft liner, hole filled up 700 ft, sw over night, will pull liner and set 5-in cas.

**TILLMAN COUNTY**—Luffborough et al's Finley 1, SWc NE SW NW 23-2-17, sd 2875 ft. Okla-Tex Oil Co.'s Riverbed 2, NEc SE SE NW 4-5-14, sd 1619 ft; Owen 2, NEc SE SE NE 7-5-14, dr 1100 ft. Staley et al's Riverbed 1, NEc SE 7-5-14, rig. Revenue Oil Company's Riverbed 2, SEc NW NW 8-5-14, sd 1517 ft. Continental Oil Company's Riverbed 4, SWc NW 8-5-14, co 1696 ft.

**WASHITA COUNTY**—R. B. Hartman 1, NEc SW SE 23-9-17, dr 1400 ft, show of gas. Santrock Bros. 1, SWc NE 20-8-16, r, 6-in cas 2280 ft.

## *Louisiana Wildcats*

**COMPLETIONS**

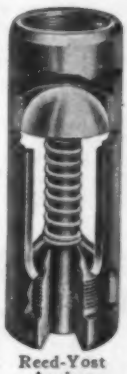
| Company, Well, Location | Initial Production bbls. | Depth |
|---|---|---|
| **Bienville Parish—** | | |
| Ohio Oil Co. Randall 1, 12-18-7.... | * | 2993 |
| **Bossier Parish—** | | |
| Triangle Drilling Co. (Brannon Oil Co.) Bolinger 1, 18-22-11..... | * | 2854 |

**DRILLING REPORT**

**BIENVILLE PARISH**—Smith et al's Durrett 1, 34-18-5, dk. Smith et al's Harrell 1, 6-18-5, dk. Standard Oil Co.'s Scott 1, 21-17-8, dr 2010 ft. Welborn et al's McVey 1, 9-19-11, lcn.

**BOSSIER PARISH**—Atlas Drlg. Co.'s Bolinger 1, 3-22-12, sd 1305 ft. Perkins et al's Vance-McFarland 2, 18-19-13, to set 6-inch 2557


**Less Pulling—More Oil**



Reed-Yost Anchor Dump Valve

D. & B. "Quality First" Pumps increase the profits of a producing well by raising more oil in a given time at less expense.

Renewable inner liners, distinctive D. & B. features, enable operators to keep their pumps at maximum efficiency.

*It will pay to investigate*

**D&B Pump & Supply Co.**

301 West Avenue 26, Los Angeles, Calif.

Factory Branch
Love Aviation Field Repair Depot
P. O. Address, Box 1033, Dallas, Texas



**LUCEY**

**CHROME STEEL FISH TAIL BITS**

How much does one round trip "pulling out" cost you?

Assuming that this can be done in one hour in a 9⅞" hole at 1000 feet, we estimate it would cost you about $3.00 in labor only.

The average Fish Tail Bit for 9⅞" hole weighs approximately 100 pounds each.

If you saved one round trip, you would save $3 or 3 CENTS per pound. For JUST ONE ROUND TRIP!

We reduced "pulling out" time two-thirds for one large operator. They consider our Fish Tail Bits the cheapest on the market.

WHAT PRODUCES THIS RESULT? THE RIGHT KIND OF STEEL, PROPERLY FORGED AND HARDENED, for the WORK TO BE PERFORMED.

"Wherever LUCEY There's Oil"

R. U. CULBERSON, Receiver

**Lucey Manufacturing Corporation of Texas**

Houston, Texas

Beaumont, Texas — El Dorado, Ark.
Smackover, Ark. — Corsicana, Texas
Shreveport, La. — Mexia, Texas
Dallas, Texas

**STEEL**

ft. Sales-Walker Oil Co.'s Bolinger 3, 30-23-11, fsh 720 ft. Sneed & Harper's Jones 1, 23-18-11, sd 60 ft. Tarver Pet. Co.'s Bolinger 1, 15-22-12, milling 2657 ft. Zink & Kurbert's McGuffin 1, 4-18-11, sd 260 ft.

**CADDO PARISH**—Brewer et al's Sharp 1, 15-18-16, fsh 1910 ft. Caddo-Western Gas Co.'s Gardner-Blades 1, 2-16-15, sd 2050 ft. Louisiana-Texas Community Oil Co.'s French 1, 34-23-16, showing oil 2883 ft. Matson et al's Nickerson 1, 30-19-15, dk. Myra et al's Roberts 1, 34-23-15, sd 2810 ft.

**CLAIBORNE PARISH**—El Dorado Chief O. & G. Co.'s McKenzile 1, 35-22-7, dr 3520 ft. Ohio Oil Co.'s Teague 1, 10-23-7, dr 2890 ft. Standard Oil Co.'s Shaw-Palmer 3, 30-21-7, rig up, cable tools, 2001 ft. Triangle Drilling Co.'s Ranich 1, 17-22-5, dr 2070 ft. O'Brien et al's Dales 1, 26-21-9, dk tmbrs.

**DE SOTO PARISH**—De Soto O. & G. Co.'s Bland 1, 11-11-16, sd 2610 ft. Gilbert et al's Hicks 2, 3-10-13, lcn. Phillips-Garrett Synd.'s Platt 1, 36-13-14, dr 2048 ft; showed gas. Pollack et al's Jenkins 1, 25-13-13, to set 6-inch 2502 ft. Snell et al's Thompkins 1, 30-14-12, dr 2725 ft. Tarver et al's Gilbert 1, 32-12-11, wosr 2740 ft. Texas Pacific Coal & Oil Co.'s Roscoe 1, 22-12-13, dr 2010 ft.

**LA SALLE PARISH**—Urania Pet. Co.'s Urania 2, 20-10-2E, to set 8-inch 1460 ft.

**LINCOLN PARISH**—Bickner et al's Colvin 1, 35-20-2W, dk. Bob Burch Pool's Huffman 1, 20-20-2W, r 2706 ft. Four Creeks Oil Co.'s Colvin 1, 27-20-3W, fresh water 380, sd 600 ft. Middlefork Synd.'s Kay 1, 8-20-3W, sd 2280 ft.

**OUACHITA PARISH**—Haynes Oil Co.'s Dixie 1, 54-17-3E, testing 2580 ft.

**RED RIVER PARISH**—Coushatta Synd.'s Marsten 1, 24-12-10, fsh 2250 ft. Le Grande et al's Fee 2, 2-14-12, set 4½-inch 1770 ft. U. S. Drlg. Corp.'s Fletcher 2, 10-12-10, sw 2810 ft; to test again at 1160 ft.

**SABINE PARISH**—Brown et al's Bowman-Hicks 1, 7-7-12, to resume dr 3125 ft; Bowman-Hicks 7, 16-7-12, sd 739 ft. Caldwell et al's Welch 1, 7-14-10, dr 995 ft. Gladys Belle Oil Co.'s Raines 1, 33-9-11, sd 3890 ft.

**UNION PARISH**—Clark et al's Fee 1, 17-23-1, sd 2254 ft. Clark & Woodward's Clark 1, 17-23-2E, dk. Collins & Woodley's Newsom 1, 23-23-1E dr 100 ft. Davidson & Palmer's Frost-Johnson 1, 18-23-1E, dr 400 ft. Empire Gas & Fuel Co.'s Hamilton 1, 30-19-1E, rig. Gardner et al's Brown 2, 6-22-3, sd 2860 ft. Love Bros.' Security Trust 1, 12-23-1W, tested show oil and sw at 2243 ft. Union Parish Drilling Synd.'s Fee 3, 17-23-1, set 6-inch 2155 ft.

**WEBSTER PARISH**—Ohio Oil Co.'s Martin 1, 34-23-10, dk tmbrs. Oil Fields Gas Co.'s Merritt 1, 14-21-10, dr 1180 ft; Pardee 1, 27-23-10, dr 1650 ft. Palmer Corp.'s Miller 1, 28-21-10, sd 3378 ft. The Texas Co.'s Merritt 1, 5-22-10, dr 3200 ft.


# PRATT & CADY VALVES

Extra Heavy Iron Body Gate Valve

Built for all water, steam and oil services where the temperatures do not exceed 500° F.

Their rugged design and renewable parts assure long and reliable service.

Specify "P. & C." Valves

**READING STEEL CASTING COMPANY, Inc.**

**Pratt & Cady Division**

**An Associate Company of the American Chain Company, Inc.**

**General Sales Office: Bridgeport, Conn.**

Stocked by

NORVELL-WILDER Hardware Co., Beaumont, Houston, Mildred and Shreveport.

GRINNELL CO. OF THE PACIFIC, Los Angeles, California.



# Cosden & Company

**HIGH GRADE**

**PETROLEUM PRODUCTS**

TULSA, OKLAHOMA


## *Arkansas Wildcats*

### COMPLETIONS

| Company, Well, Location— | Initial Production Bbls. | Depth |
|---|---|---|
| **Ouachita County—** | | |
| Newton et al Martin 1, 30-12-16.... | * | 2507 |
| Wood et al Garnett 1, 2-12-8..... | * | 2660 |

### DRILLING REPORT

**CALHOUN COUNTY**—American Oil & Gas Co.'s Ellis 1, 5-12-13, dk. Checkerboard Oil Co.'s Abbott 1, 20-14-14, sd 2524 ft. Harris & Bickley's Freeman-Smith 1, 26-16-13, dr 800 ft. Lee et al's Freeman-Smith 1, 19-15-12, lcn.

**CLARK COUNTY** — American Drlg. Co.'s Wilson 1, 15-8-22, sd 392 ft. Arkansas Oil Co.'s Barringer 1, 26-10-20, sw 2965 ft. Dudley Trust's Grayson 1, 35-9-18, dr 540 ft. Kansas Pet. Co.'s Fee 1, 31-9-21, dk. Littlejohn et al's Fee 1, 22-8-18, sd 901 ft.

**COLUMBIA COUNTY**—Brown et al's Robinson 1, 23-18-23, dr 2765 ft. DeSoto & Hickman's Fullenwilder 1, 3-16-21, sd 490 ft. Dowdy et al's Fullenwilder 1, 12-17-22, to set cas 2190 ft to test show of oil. Hosey & McDonald's Haire 1, 30-19-18, dr 1260 ft. Miller et al's Watts 1, 20-16-18, sd 1990 ft. Woodward et al's Allen 1, 1-18-19, dk.

**DREW COUNTY**—Graves et al's Karnes 4, 10-13-6, dr 1350 ft. Monticello Ridge Oil Co.'s Wilson 1, 10-12-17, dr 1815 ft. Rhodes et al's Martin 1, 27-12-8, set 12½-in 80 ft.

**HEMPSTEAD COUNTY**—Columbus Hope Oil Co.'s Haffke 1, 9-11-26, dk. Martin et al's Adams 1, 36-12-27, dr 1600 ft. Meyer et al's Nicholls 1, 17-11-25, dr 1500 ft. Orr et al's Yates 1, 19-12-23, dr 1215 ft.

**JEFFERSON COUNTY** — Fuller et al's Trimble 1, 31-5-8, sd 2534 ft. Maude O. & G. Co.'s Fuller 1, 21-7-10, dk.

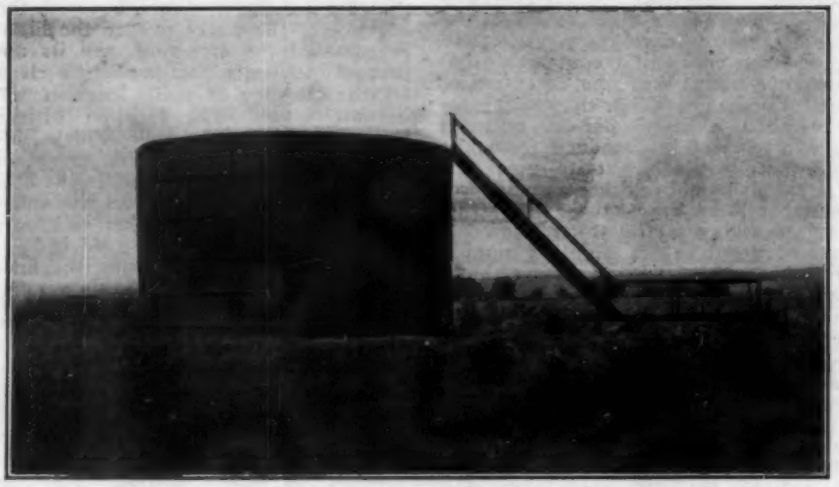
**LITTLE RIVER COUNTY**—Gaines et al's Thomas 1, 15-13-29, dr 1600 ft. Grote et al's Allen 1, 2-14-31, sd 2350 ft. Johnson et al's Hawkins 1, 10-11-31, sd 665 ft. Red River Valley Oil Co.'s Taylor 1, 29-13-29, sd 2790 ft. Sullivan Oil Co.'s Ludlow 2, 33-11-32, sd 2410 ft.

**MILLER COUNTY**—Central Coast Oil Co.'s Mann 1, 23-15-16, sd 3357 ft. Cochran & Ray's Adams 1, 4-14-27, dr 2350 ft. Kingsley et al's Thompson 1, 33-14-28, sd 70 ft. Munn O. & G. Co.'s Fee 1, 27-14-27, dk; Gillespie 1, 22-14-26, dk.

**NEVADA COUNTY**—Arkrado Oil Co.'s McCain 1, 36-10-23, rig. Anderson & Edwards' Eaves 1, 11-12-23, sd 180 ft. Carter et al's Bailey 1, 31-13-21, sd 400 ft. Day Trust's Westmoreland 1, 10-12-21, dr 1735 ft. Miller Dee Trust's Stone 1, 36-12-20, dr 2550 ft. Prescott Oil Co.'s Henry 1, 10-12-20, dr 1015 ft. Steele & Sandlin's Martin 1, 13-14-22, sd 62 ft. Transcontinental Oil Co.'s Blakeley 1, 14-13-20, rig. Weissman et al's Suckle 1, 1-10-23, sd 1080 ft. Wooten et al's Martin 1, 9-13-20, sd 1058 ft. White et al's East 1, 13-13-22, sd 15 ft.

**OUACHITA COUNTY** — Bray & Hawthorne's Halford 1, 20-14-16, dr 1150 ft. Cox et al's Burton 2, 30-15-17, sw 1960 ft; Burton 3, dk. Gulf Refining Co.'s Dawson C-1, 10-15-18, to dr 8-in plug. Hall et al's Goodgame 1, 19-11-15, sd 2310 ft. Hammond et al's Riley 1, 22-15-17, sd 2647 ft. Hopkins et al's Allen-Cur 1, 33-14-19, dr 1980 ft. Leeper et al's Wesson 1, 23-15-19, cap 2175 ft. Marr Drlg. Co.'s Berg 1,

# PERFECTION VAPOR PRESSURE TANKS
## WOOD, AND BOLTED STEEL TANKS



A Perfection storage tank owned by Sinclair Pipeline Co. in a Kansas field.

Black, Sivalls and Bryson attribute their success in no little measure to the fact that they have maintained service stations all over the country. In every active field are representatives who are more than willing to help producers figure on their lease requirements. Better still there are ample stocks of tanks in all the usually required sizes.

## *A Prime Requisite for the Reduction of Evaporation Losses Under Present Storage Conditions is Vapor Tight Tankage*

Report U. S. Bureau of Mines, Serial No. 2531.

We are glad to note the U. S. Bureau of Mines agrees with the contention we have been making the past two years.

The only sure way of preventing evaporation losses is to have vapor tight tanks.

Furthermore vapor tight tanks should have relief valves. Listen to this from the same report:

> In order to provide for the necessary release of pressure or vacuum * * * each tank is equipped with proper pressure and vacuum relief valves; * * * it prevents any distortion or rupture to the tank roof due to expansion and contraction of the vapors in the tank caused by variations in atmospheric conditions.

That's exactly the description of the Perfection Vapor Pressure Tank which Black, Sivalls and Bryson have designed to combat storage losses.

You can hardly pick on other brands of tankage when the Perfection follows the recommendations of the U. S. Bureau of Mines so closely. And if that is not argument enough, simply ask anyone who is using them. He will tell you his Perfections paid for themselves long ago.

*Write today for your copy of "The Proof of the Pudding." It's free.*

# Black Sivalls & Bryson
INC.

BARTLESVILLE ~ OKLAHOMA

Branch offices in all principal active fields

## What Research Shows For Long Beach Field

(Continued from page 27)

from the Fernando in appearance of the shale, and yet not typically Monterey (Miocene). This shale is hard, nearly black, and shows bedding planes dipping more steeply than those of the Fernando. An unconformity between the Fernando and these beds is indicated by the fact that they are not encountered at the expected depths in some of the deepest wells. Their age may be Upper Miocene.

**Structure:** The subsurface structure of the Signal Hill oil field is an elongated dome, which plunges rather steeply southeast and rather gently northwest, and the proved area of which is about three miles long by three quarters of a mile wide. The closure on the structure is about twelve hundred feet. The surface area is about twelve hundred acres. * * *

### Oil Zones

The separation of the productive oil measures in the Signal Hill field into distinct zones is not easy in view of the absence of certain means of correlation or differentiation. Most of our information on which to base a division of the productive measures into different zones was obtained in the early days of the field, when the sands were being felt out. After it was found possible to produce from 2000 or more feet of sand free from water, the divisions into zones did not seem so vital. As water encroaches, however, it will become necessary to divide our present zones into a great many more units. The characteristics of the oil zones as used by the Shell Company at the present time will be described briefly.

**Wilbur Zone:** The highest of the oil measures, the Wilbur zone, is generally passed up near the apex of the structure because of heavy gas pressure, and around the edges of the structure because of water. With the exception of Shell Company Wilbur 1, which produced about 50 barrels per day, no wells have attempted to produce from the Wilbur zone alone, but its small lateral extent would indicate a small production. Near the apex of the structure several disastrous gas blowouts have occurred in this zone. A number of wells west of Cherry Avenue have, however, been cemented above or in the Wilbur zone. The thickness of this zone is probably not over 200 feet.

**Alamitos Zone:** The Alamitos zone takes its name from the discovery well, Alamitos 1. Most of the early wells, which produced from the upper part of this zone, gave oil with a gravity of 21 to 23 degrees. Later wells, going a little deeper than 400 feet into the Alamitos zone, came in with a higher production and yielded oil of higher gravity than the shallower wells. Still other wells, in the eastern part of the field and farther down on the structure, encountered water at approximately 400 feet from the top of the Alamitos zone. The San Martinez Booth 1 is believed to have entered this lower zone first, hence this was called the Booth zone. The gravity of the oil from the Booth zone was about 26 degrees. No lithologic division, such as a thick body of shale, could be found that might be used as a marker between the Alamitos zone and the Booth zone, so the two zones could only be differentiated on gravity of the oil. Since later wells were drilled to produce from several zones, it no longer became possible to recognize the Booth zone by increase in gravity. It has, therefore, been included with the Alamitos. The thickness of the Booth zone appears to be about 270 feet and the total thickness, then, for the Alamitos zone as used in the sections, is approximately 670 feet.

**Brown Zone:** Wells near the apex of the structure which were drilled more than 670 feet below the top of the Alamitos zone produced oil in greater amount and of still higher gravity than those drilled only in the Alamitos zone. Oil from some of the wells showed a gravity of 30 degrees. This higher gravity zone was called the Brown zone, from the fact that the Petroleum Midway Brown 1 is thought to be the discovery well of this zone. Again, no definite lithologic marker can be recognized in the logs for delimiting this zone. On the screen the top of the Brown zone is shown by a dashed line parallel to the top of the Alamitos. Although the position of this line is fairly well defined near the apex of the structure, at the edges of the field it is largely conjectural. Gravity differences cannot be relied upon around the edges of the structure, because gravity seems to become lower as one goes down the dip.

**Bixby Zone:** In the eastern part of the field a sand carrying a heavy flow of hot salt water is followed by a rather rich oil sand, about 250 feet below the top of the Brown zone. The Shell Bixby 1 well has been producing from this sand, and it is therefore called the Bixby sand.

### Water

Water in the Long Beach field has not yet become serious except around the edges of the structure, but with the advance of the water toward the higher parts of the structure, and its appearance in wells now producing clean oil, the question as to its location will become acute. The location of the water in many of the wells will be difficult, if not impossible, due to rather abrupt and irregular changes in the lithology of the beds, which fact will cause the water to advance farther and more rapidly along the coarser sand beds at different horizons than along the finer ones; and also due to the large amount of open pipe in the holes. * * *

### Drilling

The first few wells in the Long Beach field were drilled to the cementing point with rotary and then finished with cable tools. With the exception of these wells, all the drilling since has been by the rotary method. The time taken to drill the wells entirely with rotary tools is only about one-fourth the time necessary to drill to the cementing point with rotary and then to finish with cable tools. With rotary it has been possible to finish a well for production to a depth of 5500 feet in approximately 120 days. The time factor, where the primary object is to get the oil as quickly as possible in fields where competition is strong, is proving the rotary system to be the big economic factor. Besides the saving in recoverable oil, in a field where the sands are fast being drained by competitors, there is the material decrease in drilling expense.

The formations are very effectively drilled by the rotary system being consolidated just enough to stand up well after being mudded. After casing off the upper 600 to 1000 feet of loosely consolidated sand and gravel, the holes are almost entirely free from caving sands.

The advantages of the rotary system over cable tools are evident when it is considered that it has become common practice in the field to finish wells 1800 to 2500 feet below the lowest shut-off point. This necessitates the setting of an oil string with 1000 to 2500 feet of friction. With cable tools it is not practicable in this field to have more than 400 feet of friction on the casing; consequently, the hole would have been greatly reduced in size by the time the full depth of the oil measures were opened. Within a limited area on the crest of the structure, productive oil measures free from water have been penetrated for a thickness of 3150 feet, or 5450 feet below the surface. This would require seven or eight strings of casing below the water string, and it can be understood how impossible it would be to finish a hole to such a depth with cable tools. Cable tool drilling to great depths also means a great waste of casing, as the various drilling strings serve no useful purpose after the hole is finished.

### Mudding

Little or no trouble is had from caving sands after the upper loose formations have been cased off. It has been found by experience that the condition

---

31-13-16, sd 1983 ft. Peltier et al's Eagle 1, 25-13-16, sd 1520 ft. Pure Oil Co.'s Moline 1, 21-11-17, set 8-in 1771 ft. Riley et al's Henry 1, 10-11-16, fsh 2072 ft; Henry 2, 21-11-16, dk. Smackover Creek Oil Co.'s Moon 1, 32-15-17, set 6-in 1861 ft; Moon 2, dk abn.

**UNION COUNTY**—Bondurant et al's Clark 1, 34-17-12, dry 2611 ft; Stegall 1, 3-18-12, sd 3045 ft; Turbeville 1, 9-18-12, rig. Federal Pet. Co.'s Union Saw Mill Co. 2, 28-17-12, dr 2530 ft. Garrett et al's Robinson 1, 33-18-14, rig. Isola Oil Trust's Matthews 1, 34-16-14, sd 2257 ft. Ray et al's Long 1, 28-16-14, sd 1960 ft. Starke et al's Little 1, 21-19-12, sd 612 ft. Strong Oil Co.'s Norman 1, 16-18-14, set 10-in. 250 ft.

## *Kansas Wildcats*

**BARTON COUNTY**—Cheyenne Oil & Gas Co.'s Sooy 1, SWc SW 27-18-12, fsh 3525 ft. Haynes et al's 1, SWc SW 31-18-12, lcn. Mountain States Oil & Gas Co.'s 1, SEc NE 22-18-13, fsh 2300 ft. Taylor et al's Johnson 1, NWc SE 24-18-13, lcn.

**JEFFERSON COUNTY**—Northern Counties' Edwards 1, SEc NW NW 13-9-19, fsh 3400 ft.

**OSBORN COUNTY**—McKnight et al's Worley 1, NWc NW 34-10-15, rig.

**POTTAWATOMIE COUNTY**—Crawford et al's Stewart 1, C E L SE SE SE 17-9-12, rig; Greischabert 1, SWc SE SW SW 31-9-12, rig.

**RENO COUNTY**—Haynes et al's O'Halloran 1, NWc SE NW 28-25-6, dr 2610 ft.

**REPUBLIC COUNTY**—Mitchell O. & G. Co.'s Walker 1, SEc NE NE 23-2-1, dr 1600 ft.

**RILEY COUNTY**—Ritchie et al's Boyle 1, SEc 36-7-4, dr 2040 ft. Welton Oil Co.'s Thierer 1, NWc 20-10-7, fsh 1226 ft.

**SEWARD COUNTY**—C. T. Development et al's Wood 1, NWc SE 34-34-34, sd 700 ft.

**SUMNER COUNTY**—Champlin Refining Co.'s Hiltcock 1, NWc NE 16-30-1, dr 3200 ft. S. H. E. Development Co.'s Stout 1, SEc NE 13-31-2, sd 1780 ft. Brady Bros.' Turpin 1, SWc 13-33-2, fsh 3360 ft. Dillard Bros.' Miller 1, NEc SE 9-23-1, dr 3285 ft.

**TREGO COUNTY**—Morton et al's Kyser 1, C E½ 9-11-22, dr 1020 ft.

or consistency of the mud fluid has a great deal to do with successful rotary drilling. Experiments have shown that the depth of penetration of a light gravity mud fluid into a porous formation is greater than that of a heavier gravity. It has been learned that in general practice mud of a specific gravity of 1.13 gives the best results. Where the hole has been drilled with a mud fluid of this gravity it has been found that the mud wall of the hole is more permanent and that the sand carried in suspension in the mud fluid settles out in the settling troughs faster than when mud fluid of heavier gravity is used. For a fishing job in deep drilling, the use of the lighter gravity mud fluid may sometimes prove to be a disadvantage, for the sand held in suspension in the mud fluid in the hole may settle around the fish very often freezing it before it is possible to get back into the hole with fishing tools. Experiments are now being made to find a mud fluid of the proper specific gravity which will hold the sands in suspension a little longer and overcome this difficulty.

### Circulating Oil

In fishing jobs where it has been found that the drill pipe has been frozen by formation settling around the fish, it can often be successfully loosened by circulating oil. Circulating oil causes the formations to creep, and in cases where sand has settled around the fish, the oil tends to hold it in suspension and causes it to ooze. By keeping a tension on the drill pipe and then circulating oil around the frozen fish, it usually comes loose very easily.

### Casing

The casing program adopted for the wells in the field has been such as to meet the local conditions in the different parts of the field. The conductor casing is cemented at depths ranging from 600 to 1000 feet. This string cases off the loose surface formations and also allows the water string to be anchored, which procedure is often a safeguard against blowouts from behind the water string.

The depths at which water strings are cemented range from 2300 to 4000 feet or more in different parts of the field, depending upon the structural location of the well and the water conditions. The larger sized casings are popular in the field. It has been found advantageous to maintain the largest size hole possible so that the well is in condition to be deepened if desired. This also facilitates additional water shutoff if water should encroach upon the well.

Because of the great amount of friction on long strings, it is the general practice in the field, after setting one string, to omit the next succeeding size and set the next smaller size—that is, if 10-inch casing is used for the water string, to use 6¼-inch casing for the oil string.

The oil string is landed with screen pipe on the bottom, usually extending to the shoe of the water string and open to the full thickness of the productive oil measures. Sometimes when the upper measures are lean, it is best to case these off behind blank casing. There is considerable variation in the richness of the different sands within the productive horizon, and where by means of a series of production tests as the well is carried down, the relatively rich and lean sands have been located it has been found that by blanking off the lean portions, wells will give as good a yield as if the whole zone were open.

In present day deep drilling, the casing program is planned so as to have as much as possible of the drilling within a protective casing. The usual program is to set 18-inch for the conductor, 11-inch for the water string, land 8¼-inch casing for an oil string at maximum depths of 3500 to 4000 feet and then complete the well with a 5 3-16-inch liner.

A 27-inch diameter hole is drilled for the 18-inch conductor casing. After cementing this string, a 17-inch hole is drilled to the cementing point of the 11-inch water string. The hole is then reduced to 10⅝-inch diameter, which size is carried to the landing point of the 8¼-inch casing. After setting this string, a 7⅝-inch hole is drilled to the completion depth for the 5 3-16-inch liner. Six-inch drill pipe is used in drilling the hole to the cementing point of the water string. After the water string is set the 6-inch drill pipe is broken down and replaced with 4-inch drill pipe, which is used in 11-inch and 10-inch casing. To drill in through 8¼-inch and 6¼-inch casing, 3-inch drill pipe is customarily used. In adapting the drill pipe to the size of casing in this manner, it is easier to recover in the event of a fishing job.

### Cementing

As so many of the improvements in modern deep well drilling have as their


a reinforced center sill

456,000 ft. lbs. stronger than the type sill in general use, and constructed materially lighter. Patented and used only in "Pennsylvania" Tank Cars.

The Pennsylvania Tank Car Company
(Builders of Tank Cars)
Pennsylvania Car Company
(Railway Cars Built, Rebuilt and Repaired)
Pennsylvania Tank Line
(Lessors of Tank Cars)
Sharon, Pennsylvania
New York St. Louis Kansas City Casper Tulsa San Francisco Houston Beaumont

Petroleum and Its Products
High-Grade—Uniform Quality

Gasoline, Kerosene, Fuel Oil, Naphtha, Distillates

Sunshine State Oil & Refining Co.
(*Incorporated*)
Offices, 1019-1025 American National Bank Bldg. Wichita Falls, Texas

principal objective the attainment of additional speed, so also with the cementing for water shutoff. This improvement consists of the perfection of a chemical reagent which, when used with a good grade of oil well cement, speeds up the hardening or hydration of the cement and reduces the normal time for the cement to set from 14 to four days. In addition to the time saved, it has been found also that the use of the reagent increases the percentage of successful jobs.

For placing the cement, the Perkins method is used for cementing the conductor casing and the water string. The usual amount of cement used is 300 sacks, both for the conductor string and the water string. This is sufficient to provide a good anchorage for the conductor string and also to extend far enough above the shoe of the water string to afford protection to the upper oil and gas formations which it is desired to pass up.

### Coring

The taking of cores for geologic information has become common practice in California rotary drilling. This overcomes the chief objection of the geologist to the use of rotary in exploration. In the development of proved fields as well, coring has become almost universal. It enables the geologist to have a look at the undisturbed formation whenever desired. This enables him to definitely locate the top of the oil zone and to select a suitable bed in which to cement.

### Progressive Production Tests

To supplement the information gained from cores, the method of making progressive production tests is commonly used. This is done by running in a string of tubing, with a joint or two of perforated on the bottom at any stage of the drilling, and running a swab or bailer for production. In this way the relative richness of different parts of the oil horizon can be determined and any water that may be encountered can be definitely located.

### Discovery and History of Development

The history of the development of the Long Beach field is interesting as exemplifying the intensity and speed of development of the new fields of the Los Angeles basin.

**Discovery:** The discovery well of the field, Alamitos 1, on the lease of the Alamitos Land Company, was brought in by the Shell Company June 25, 1921. The well was completed at a depth of 3114 feet, and gave an initial production of 500 barrels of 21 gravity oil.

**Development:** The discovery immediately caused great activity in leasing, encouraged greatly by the town lot subdivisions which offered a tempting opportunity for small operators and lease speculators, many of whom had received their schooling under similar conditions in the Huntington Beach field.

The first development naturally centered in the vicinity of the discovery well and was confined mostly to the main eminence of Signal Hill. Subsequently there were several outstanding events in the history of the field that stimulated and guided development.

First, the discovery in Shell Company Hersch 1. This well, located one-half mile northwest of the discovery well was brought in in October, 1921. It was completed at 2730 feet, with an initial production of 350 barrels. The significant feature of this well was that the top of the oil horizon was found almost 200 feet higher than the correlations based upon the surface geology indicated. This was the first intimation that the structure in depth did not conform to the structure in the San Pedro formation at the surface, and it showed that the pool was probably considerably larger than at first supposed.

Second, was the discovery and blowout in the General Petroleum Black & Drake 1 in January, 1922. This well blew out and got out of control when drilled out for a cement test at 2298 feet. Starting with a tremendous flow of gas that wrecked the derrick, it finally went to oil, flowing at an estimated rate of over 10,000 barrels a day. As this well was located only a short distance beyond previous production it did not extend the field very much but it demonstrated the great richness of the sands along the crest of the structure. It gave a tremendous impetus to development in all parts of the field for it encouraged operators to drill on plots that under other conditions would have been considered much too small for profitable operation.

Third, discovery in the Cal-Mex Kirkpatrick 1 in August, 1922, and Herwick 7 in December, 1922. The Cal-Mex Kirkpatrick 1 was located three quarters of a mile in advance of existing production, and at the time was generally considered to be much too far out for possible production. Next, the success of Herwick 7 extended the production for almost another half mile. Together, these two wells almost doubled the proven area of the field and encouraged

TRADE MARK
KEYSTONE
REGISTERED U. S. PATENT OFFICE

Improved Deep Well Rig

EMBODIES THESE VALUABLE FEATURES

Friction Tool Hoist—Casing Reel—Indestructible Steel Sills—Keystone Patented Spudding Device—V-Friction Brakes, Patented—Babbitted Bearings throughout.

This machine is new—modern, complete, the product of an old and established concern. It is backed by 35 years of experience in the manufacture of portable drilling rigs and a world-wide reputation.

We are building three sizes: No. 27, for 2500 feet; No. 32, for 3000 feet; and No. 35, for 3500 feet depth.

Machines can be seen in various parts of the Kansas, Oklahoma and Pennsylvania fields. Let us wire you where to find one. BULLETIN 302 and prices on request.

KEYSTONE DRILLER CO.
BEAVER FALLS, PA.
*Branch Office and Plant*
Joplin, Mo.

Building a Refinery or Natural Gasoline Plant?

If you are contemplating building a refinery or a natural gasoline plant you should be a subscriber to

The REFINER and NATURAL GASOLINE MANUFACTURER

This journal specializes in that branch of the oil business that its name indicates. The subscription price is $1 per year.

Address

THE REFINER
and NATURAL GASOLINE MANUFACTURER
Box 1307 Houston, Texas

the rapid development of all the intervening territory.

The fourth event to intensify development was the performance of Shell Andrews 3. In March, 1923, while drilling at a depth of 5050 feet, the well got beyond control and for eight hours it flowed at the rate of over 30,000 barrels a day. This well was located in proven territory near the center of the field and did not prove up any additional area, but it proved the great thickness of the oil measures and the great richness of the lower sands. This quieted any fears of encountering bottom water, and caused operators to carry their wells to depths that were unthought of in the earlier history of the field. The deepest well on record at the present time is the General Petroleum Clock 1, which is now 5972 feet deep. The bottom of this hole is still showing oil, indicating a thickness of over 3500 feet of oil bearing formation.

### Speed of Development

The following figures show the speed with which the field has been developed:

Six months after discovery, at the end of 1921, there were 38 operators, 75 active rigs, 50 wells completed and drilling, eight wells producing, 130,000 feet of hole drilled, an average daily production of 1000 barrels and there had been produced a total of 82,000 barrels.

One year later, at the end of 1922, development had grown to 158 operators, 395 active rigs, 361 wells completed and drilling, 148 wells producing, 1,160,000 feet of hole drilled, an average daily production of 100,000 barrels, and a total cumulative production of 18,100,000 barrels.

At the end of August, 1923, 26 months after discovery, there were 222 operators, 700 active rigs, 630 wells completed and drilling, 270 wells producing, 2,600,000 feet of hole drilled, an average daily production of 240,000 barrels, and a total cumulative production of 57,700,000 barrels.

The curves show in terms of footage drilled the comparative speed of development of Richfield, one of the older fields, and the three new fields, Huntington Beach, Santa Fe Springs and Long Beach. Richfield represents a field that has been developed under normal conditions, of fewer operators, larger leases and more lenient drilling obligations. It presents a striking contrast to the frenzied development of the newer fields under stress of keen competition occasioned by small leases and difficult lease requirements.

### Overdrilling

As a result of this great development, the field has already been much overdrilled. The field is only a little over two years old and already there is an average of a well to every two acres—and the end has not yet been reached, for new wells are being started daily.

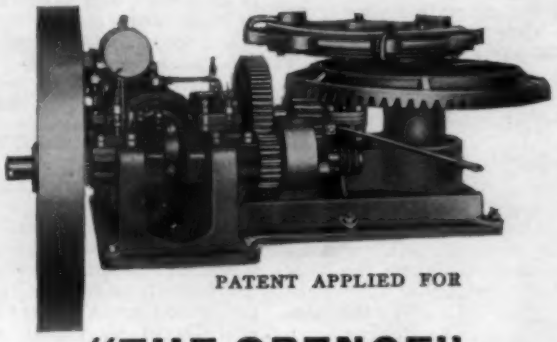
The following will serve as an example of the extremes to which the density of drilling has been carried:

For instance, on one 10-acre tract there are 18 producing wells and five wells drilling, a total of 23 active wells, or less than a half acre to the well. Another 10 acres has 20 active wells. On one five-acre tract there are 11 producers and one well drilling, a total of 12 active wells, or a little over four tenths of an acre to the well. On individual leases the congestion is still greater and it is not unusual to find three wells on one-half acre. There are instances of drilling on strips of land that were originally intended for street purposes and only 30 feet wide, or half the width of the ordinary street.

The fundamental cause of this overdrilling is, of course, the smallness of the individual property holdings. Two thirds of the Signal Hill area is subdivided into town lots, partly within the city limits of Long Beach and closely built up with homes. Outside of that, there are only a few large tracts ranging in size from 60 to 120 acres, and the remainder is in small farm lots, from 5 acres to 20 acres in size.

The overdevelopment cannot be said to be entirely the fault of the operator, and the landowner is equally to blame. The larger operators have made earnest efforts to consolidate the small holdings into community leases but generally tempting offers of larger royalties and bonuses, speedier drilling, and the owners' desires to have individual wells, have enticed them away from the community idea, and the promise of immediate profit has prevailed over the assurance of a larger ultimate return.

The overdrilling that has taken place in the Long Beach field represents a tremendous economic waste, not only

PATENT APPLIED FOR

"THE SPENCE"

A combined gas engine and single eccentric pumping power with a 10½ H. P. gas engine, positive governor, gravity feed lubrication and wico ignition for gas or gasoline equipment.

This power has been pronounced by some of our largest producers as one of the best pumping units on the market for wells in territory of medium depth.

Manufactured and sold by

H. M. SPENCE

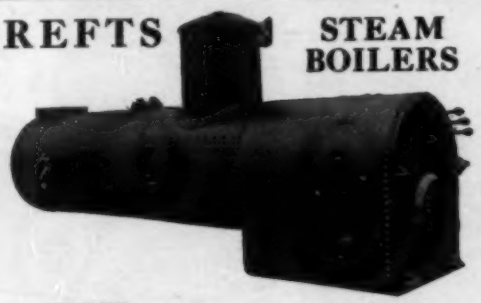
PARKERSBURG, W. Va.

FARRAR & TREFTS STEAM BOILERS

"ECONOMY"

This has been the slogan for the past several weeks and the "Shut Down" has been tough medicine for our enemies.

While our so-called competitors have been busy following the Doctor's prescriptions in order to withstand this unexpected food famine, we have been kept busy making deliveries and enjoying the usual three squares.



WHY?

The next time you have the opportunity to see an F&T Boiler in action—and you won't have to look to find one—COMPARE IT WITH OTHERS—THERE IS A DIFFERENCE.

Now as never before, are producers and contractors cutting down expense, and they know our boiler to be ECONOMICAL.

"We Acknowledge No Equal."

Orders received by mail, telegraph or telephone promptly attended to

D. F. CONNOLLY AGENCY, Inc.

623-24 Kennedy Bldg., TULSA, OKLA.

Phone Osage 1929 Night Phone Cedar 2798

MACWHYTE WIRE LINES BELTING H. & A. BULL ROPES

BOILER REPRESENTATIVES

Los Angeles, Calif.—Hillman-Cooney, Inc., 408-9 Higgins Bldg.
Casper, Wyoming—Northwestern Supply Company.
Beaumont, Texas—Brooks Supply Company.
El Dorado and Smackover, Ark.—S. Bender Iron & Supply Company.
Shreveport, Louisiana—Oil City Iron Works, 204 Strand St.
Okemah, Oklahoma—Colonial Supply Company.
El Dorado, Kansas—El Dorado Machine & Tool Company.
Fort Worth, Texas—Longhart Supply Company.

in the expenditure of capital, but in the dissipation of natural resources.

Good practice dictates that there should be not more than one well to every five acres. The present proven area of the Long Beach field includes about 1200 acres. Under normal conditions, therefore, the field could be adequately developed by 240 wells. Within the proven area there are completed or drilling at the present time a total of 630 wells, or 390 wells that are entirely unnecessary. As the average cost of drilling and completing a well for production will average about $75,000, there has been spent needlessly in drilling alone, approximately $29,000,000. This does not include a correspondingly needless outlay for more and larger camps, pipe lines, storage, gasoline plants and other facilities.

Regrettable as is the needless expenditure of capital, the lavish expenditure and waste of a great natural resource is the more deplorable. Some of the direct results of such excessive development are a loss of oil through inadequately exhausting the oil sands, loss of gas pressure and rapid encroachment of edge water, causing incomplete recovery and loss of gas which otherwise could have been utilized. Indirectly such methods cause an overproduction of oil and gasoline, and consequent fall in price, needless expenditure for storage, loss of oil through prolonged storage and the necessity for abnormal refining capacities.

### Production and Decline of Wells

The decline of wells, especially in the closely drilled portions of the field, is very rapid. The curve shows the decline in percentage of initial production. This curve is a composite based on the performance of seven groups or families of wells in different parts of the field, and is believed to be fairly representative of the field as a whole. It will apply, however, only to flowing wells, as the records of pumping wells are of too short duration to give a reliable curve. According to this curve, wells will decline to 50 per cent of their initial production in four months, to 30 per cent in six months and 9 per cent at the end of a year. When put on the pump, wells will maintain a much flatter curve but with a much lower initial point corresponding approximately to the end point of the flowing curve.

No reliable estimates can be made at this time of the ultimate recovery of the field. To date the field has produced 58,000,000 barrels of oil. This is from an area of approximately 1200 acres, which represents a recovery to date of approximately 50,000 barrels per acre.

There is no doubt that the field is very near the peak of production. Our best estimates would place the peak in December of this year. New wells to compensate for the decline of present wells would probably maintain the peak for several months, probably until February of 1924, when we expect the production to enter a definite decline.

---

**Detroit, Mich., Oct. 6.**—Official denial has been made by the Ford Motor Company that Henry Ford or associates intend to enter the oil business.

## Quick Cement Setting Is Help to Corsicana Operators

**Corsicana, Texas, Oct. 16.**—Elimination of the usual 10-day shut down for cement to set through the use of quicker setting cement materials has proven to be one of the greatest factors in speeding up the development of the Corsicana-Powell field. Rotary equipment predominates in this field, and casing is set and cemented above the Woodbine sand pay. Recent quick setting cements introduced on the market are used entirely by the operators, as it does its work satifactorily in 72 hours, while older methods required a much longer period. The modern method allows the drilling crew just sufficient time to overhaul their equipment and derrick in preparation for the bringing in of a well, and saves the company or drilling contractor from having to stand idle labor expenses for nearly a full week, besides giving more flush production to the owners of the wells through earlier completion.

---

**Los Angeles, Calif., Oct. 13.**—The federal grand jury at Los Angeles has returned indictments against four men connected with two companies, charging misuse of the United States mails, and further bills are expected next week. The thorough investigation into the formation of oil companies is being conducted by Assistant Attorney General David V. Cahill, who conducted the probe at Fort Worth, Texas, working with postoffice inspectors and other federal agencies. Numerous indictments are expected before the probe is concluded and there is much nervousness in promotion circles in California.


# FOR ROTARY OR STANDARD DRILLING

## A CROWN BLOCK BUILT FOR REAL SERVICE

**"GULFCO" Product**

Can now be had from stock at any of the following stores of the

**PETROLEUM SUPPLY CO.**

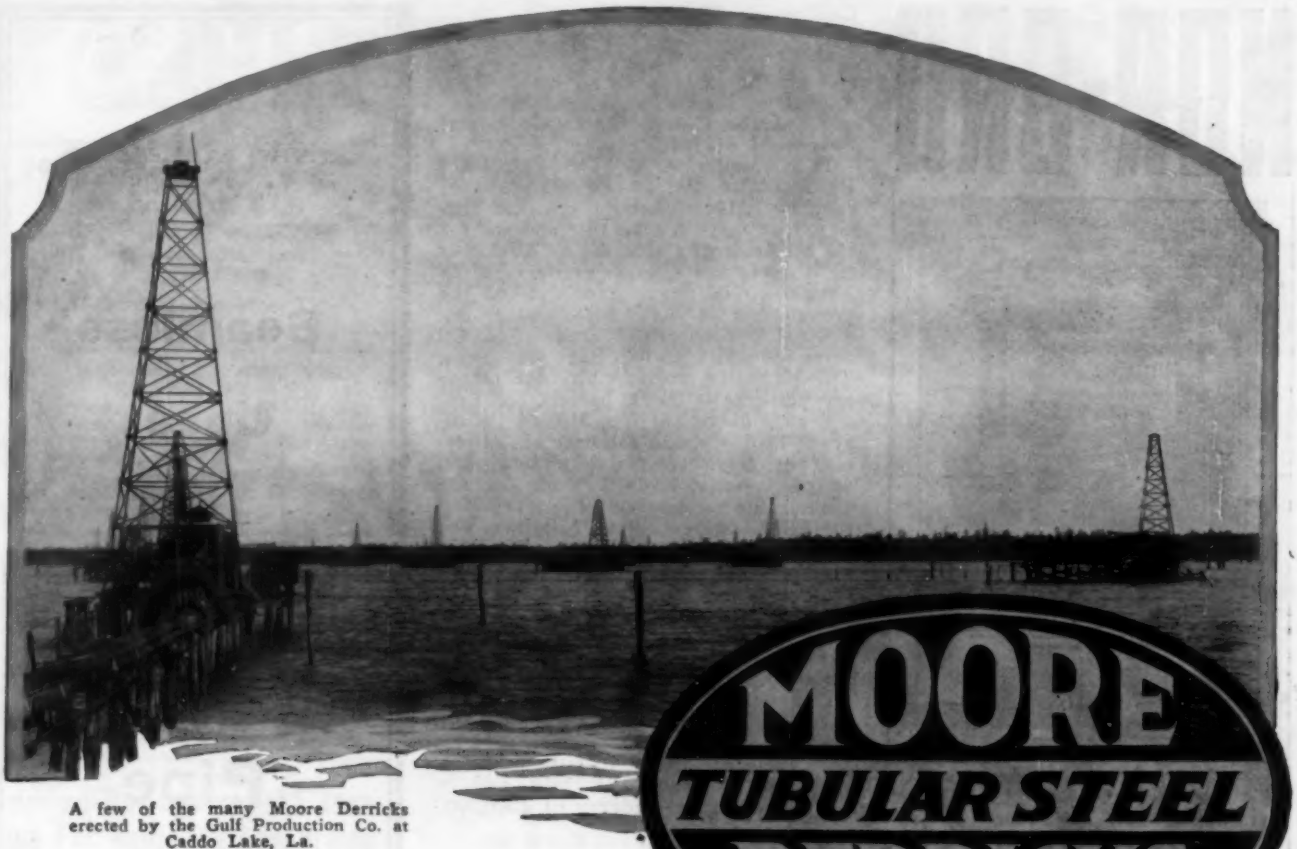
Smackover, Ark.
El Dorado, Ark.
Shreveport, La.
Houston, Tex.
Norphlet, Ark.
Mexia, Tex.
Corsicana, Tex.

1. Instead of ordinary bearings which must be oiled frequently, requiring numerous trips to the top of the derrick, and requiring a real replacement job when the babbitt wears down, the new Gulfco Crown Block has special bronze bushings that can be replaced without the pouring of babbitt; and is so oiled that the bearings are at all times running in an oil bath, protected from the weather.
2. It is extra heavy, built to stand any drilling depth.
3. It is made in any combination from two to seven sheaves with the sheaves of such thickness that it requires twice the wear of an ordinary crown-bock to cut them down.
4. It is made up on 10-inch, 35-lb. I-beams.

We shall be glad to tell any operator in the States or Mexico about this crown block that is built to eliminate worry and reduce expense.

**Gulf Coast Machine & Supply Company, Beaumont, Texas**

Say you saw it in The Oil Weekly




A few of the many Moore Derricks erected by the Gulf Production Co. at Caddo Lake, La.

# Inevitably, the "Big 'Uns" Adopt Moore Derricks

Little time is lost in adopting the Moore tubular derrick by the big companies which have once thoroughly tried, tested and compared derricks of wood and steel. Logically they proceed to buy the Moore tubular derrick on the basis of lowest ultimate cost.

Its great strength and light weight; its long life; its simplicity and ease of erection; its safety against fire and wind hazard—these are a few of the considerations which every day make big operators adopt the Moore derrick.

At Caddo Lake, La., a few years back there was hardly a Moore derrick to be seen. A year ago there were a few, and today there are a great many. Eventually you may scan the lake in vain for a wood derrick, remembering that not long ago there was no other kind.

The choice of a steel derrick is easy—the Moore derrick is invariably the choice of the large majority of operators using steel derricks. The Moore derrick, years ago, passed the experimental stage, and the evidence of over 20,000 Moore derricks in successful use should mean more to you than all the reasons we could give you for its superiority.

## LEE C. MOORE & CO., Established 1907, Pittsburgh, Pa.

Midwest Bldg., Casper, Wyo.

Atlas Life Bldg., Tulsa, Okla.

Magnolia Bldg., Dallas, Texas

P. O. Box 339 Shreveport, La.

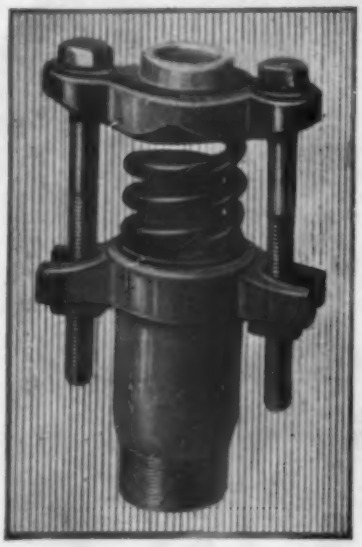
Union Trust Bldg., Parkersburg, W. Va.

California Representatives:
Buck & Stoddard

California St., San Francisco

A. G. Bartlett Bldg., Los Angeles

NOR-BRO



It's the Spring That Keeps Packing Tight

Oil leakage is impossible when NOR-BRO Spring Stuffing Boxes are used. The heavy spring exerts a powerful, constant pressure on the packing, forcing it compactly against rod.

As packing becomes worn, the tension of the spring is regulated by two convenient bolts. Spring and bottom bushing are easily removed when packing is renewed. Rods pull through box.

All parts are of malleable iron, machined and absolutely guaranteed against breakage.

Complete satisfaction guaranteed. Order from your supply house or direct from us.

Manufactured Only By
NORRIS BROS., Inc.
Manufacturers of Oil Well Pumping Equipment
Robinson, Illinois

NORRIS

## California's Ultimate Recovery Discussed

(Continued from page 25)

520, as compared with an estimate of 360,000 by M. L. Requa, and the estimate of the United States Geological Survey of 544,000."

In a discussion of "The Petroleum Resources of the United States as of January 1, 1915," Arnold[2] gave an estimated ultimate recoverable content for the oil fields of California as 3,041,274,000 barrels and a future recovery of 2,300,000,000 barrels. Arnold fixed the proved area at 99,840 acres and an additional "prospective" area of 25,600 acres for which no barrelage was given. The estimated average ultimate recovery per acre is 30,000 barrels.

Senate document No. 310, of February 3, 1916, gives an estimate of California petroleum remaining underground as of January 1, 1916, made by the United States Geological Survey and the United States Bureau of Mines. The amount is 2,345,000,000 barrels. The production of petroleum in California up to January 1, 1916, was 878,367,000 barrels, making an estimated ultimate recovery of 3,223,367 barrels.

Beal[3] in his bulletin on decline and ultimate production of oil wells made an estimate as of December 31, 1917, of 3,300,000,000 barrels as the ultimate production for California oil fields. This was on a basis of one billion barrels produced to January 1, 1918, and an estimated future recovery of 2,300,000,000 barrels.

### White's Estimate

In a paper presented at the annual meeting of the Society of Automotive Engineers, in February, 1919, David White estimated the available oil left in the ground in California, as of January 1, 1919, as 2,250,000,000 barrels. This, added to a recovery up to the end of 1918 of 1,114,000,000 barrels, gave an estimated ultimate production of 3,364,000,000 barrels.

The estimate made by the California committee of the American Association of Petroleum Geologists, as of July 1, 1921, made for the United States Geological Survey, gave a future production of 1,680,000,000 barrels for that date. The estimate as finally published by the United States Geological Survey was 1,850,000,000 barrels as of January 1, 1922, representing an upward revision of about 230,000,000 barrels. California's ultimate recovery, based upon the survey's revision therefor, was 3,314,000,000 barrels.

### Brought Down to July

The estimate of January 1, 1922, has been brought down to Jully 1, 1923, by the authors. Revisions in proved acreage are necessary for Huntington Beach, Long Beach, Santa Fe Springs, Torrance and Wheeler Ridge. The three latter fields were not included in the original estimate. The first two fields were included, although in the initial stages of development and underestimated. The status of other areas has not changed greatly since July 1, 1921. The estimates of ultimate production for Huntington Beach and Long Beach were revised upward as

[2]Arnold, Ralph, The Petroleum Resources of the United States—Economic Geology, Vol. X.—December, 1915, No. 8, p. 695.
[3]Beal, Carl H. Decline and Ultimate production of oil wells—Bureau of Mines Bull. 177, 1919, p. 201.

STANDARD

Seamless Upset Rotary Drill Pipe

In Stock at Warehouses of

REPUBLIC SUPPLY CO.
CONTINENTAL SUPPLY CO.
FRICK-REID SUPPLY CO.

California:

ASSOCIATED SUPPLY CO.
REPUBLIC SUPPLY CO.

Standard Seamless Tube Co.

Pittsburgh, Pa.

# OIL FIELD EQUIPMENT

**HOUSTON OIL FIELD MATERIAL CO.**
PIPE, BOILERS, ENGINES
All Kinds of Equipment,
New and Used
West Bldg. Houston, Texas

PIPE, MACHINERY & OIL WELL SUPPLIES
Complete line of new and used pipe, complete Rotary Drilling Rigs, at attractive prices. Mill shipments promptly filled. See us before you buy.
TEXAS PIPE & SUPPLY CO.
1706-20 Maury Street Houston, Texas
Phones, Preston 1592-5411

C. H. Smith, Pres. and Treas.
Mrs. J. B. Moore, Vice-Pres.
A. L. Eastham, Sec.
**Beaumont Well Works Co.**
Oil, Gas and Water Well Supplies
Cor. Laurel and Magnolia
Beaumont Texas

**Second-Hand Wrought Iron Pipe For Sale—At Low Prices**
20 miles—2" line
3 miles—3" line
5 miles—4" line
3 miles—6" line
2 miles—6¼" casing for gas line
5 miles—8" line
If interested write for prices. Located near B. & O. depot.
**FOSTORIA PIPE CO.**
Fostoria, Ohio

"First Exclusive Iron Dealers in Texas"
**F. W. HEITMANN COMPANY**
113 Main St., Houston, Texas
Gardner Steam Pumps
National Pipe, Boiler Tubes
Fittings, Valves, Packings
Beltings, Wire Rope
Drilling Cables, Bull Ropes
We carry a complete stock of the above commodities at all times and can ship immediately

follows: Long Beach from 5,000,000 to 130,000,000 barrels and Huntington Beach from 38,425,000 to 143,508,000 barrels. The estimates for the three latter fields have been determined as follows: Santa Fe Springs, 172,750,000 barrels; Torrance 32,790,000 barrels, and Wheeler Ridge 10,944,000 barrels. The estimates for Huntington Beach, Long Beach and Santa Fe Springs are the average of a number of estimates of ultimate recovery per acre furnished the writers by several engineers. They are considered conservative, but data of production after the fields have passed from the flowing stage may show them to be too high.

The net addition of ultimate recoverable oil to the estimate of July 1, 1921, is, as of July 1, 1923, 448,567,000 barrels, making a total ultimate recovery, since the development of the four new fields of the Los Angeles Basin and Wheeler Ridge in Kern County, of 3,543,567,000 barrels.

The total proved area set by the committee as of July 1, 1921, was 101,935 acres. To this has been added proved acreage as determined by the state oil and gas supervisor as of July 1, 1923, for Santa Fe Springs, Torrance and Wheeler Ridge, with adjustments also for Long Beach and Huntington Beach. This gives a revised total proved acreage of 106,843. The average ultimate recovery per acre is now 33,100 barrels per proved acre as compared with 30,400 barrels, the estimate prior to revision.

The totals of the original and revised estimates are as follows:

As of July 1, 1921—Past production, 1,415,000,000; future production, 1,680,000,000; ultimate production, 3,095,000,000; proved acres, 101,935; ultimate per acre, 30,400.

As of July 1, 1923—Past production, 1,721,000,000; future production, 1,823,000,000; ultimate production, 3,544,000,000; proved acres, 106,843; ultimate per acre 33,100.

### Proved and Developed Acreages

In the above estimates the proved acreage is about 7000 acres lower than the total proven acreage for the state as determined by the department of petroleum and gas of the state mining bureau. This is due principally to lower estimates for Midway-Sunset, Coalinga and Elk Hills oil fields. It is possible that these estimates approach more nearly the developed acreage within proved area than the total proved acreages as determined by the department of petroleum and gas. The following analysis shows that there is a distinction:

The total proved acreage for all oil fields of the state on July 1, 1923, as determined by the department of petroleum and gas of the state mining bureau was 113,449 acres. Of this amount 83,885 acres is in the valley fields of Fresno and Kern County, 14,011 acres in the coastal fields and 15,553 acres in the Los Angeles Basin. Up to July 1, 1923, 14,242 wells had been drilled within the proved areas and, weighted by the average acreage per well peculiar to each field[4], had developed 58,808 acres, leaving 54,641 classed as undeveloped.

[4]Collom, R. E. Notes on California Oil Field Practice—Bull. A. A. P. G. Vol. VII, No. 2—Mar.-Apr. 1923, pp. 114, 116.

### Conclusion

It is apparent that the method of determining a number of factors such as proved and developed acreages, spacing of wells, rate of drilling of new wells and abandonment of depleted wells,

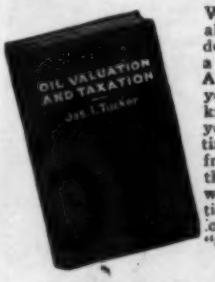
"Trained Mechanical Engineer (Technical and Practical) with nine years oil field experience seeks employment in executive capacity, could lay out pipe line installation; is conversant with the bearing viscosity has on flow of oil in pipe lines, also has had experience with casing head gasoline plant, absorption type. Apply Box 87 OIL WEEKLY.

Sensation Belting
VOORHEES RUBBER MFG. CO.
TRADE MARK
JERSEY CITY, N.J.

"TEXAS SPECIAL" PORTABLE ROTARY RIGS
Gasoline engine, Power pump and complete Draw Works ALL ON WHEELS. Drills 2500 ft. for $1.50 per ft. Write for details and letters from satisfied owners.
OIL WELL SERVICE COMPANY
Cotton Exchange Houston, Texas

PIPE FOR SALE—Fifty miles or more of 4-inch line pipe standard, of 10.98 weight per foot with couplings. First class used F. O. B. location. Can furnish second-hand oil field equipment. In market for used oil field material.
THOS. F. HUDSON, M. D.
610 Binz Bldg. Houston, Texas

VALVES FOR SALE
Ten new drilling valves, 8-in. x 10-in. screwed ends, 8 threads to the inch for 8¾-in. O. D. casing. Tested 2500 lbs. Ready for immediate shipment. Will sacrifice all or any part for quick sale. Box 57, care Oil Weekly, Houston, Tex.

**Chapter 2. Federal Income Tax:**


What do you know about its history and development? Would a large "Discovery Allowance" against your tax be worth knowing about? Can you accurately distinguish "Capital" from "Income" in the oil game, and tell why in Tax questions? Are all your former Returns "closed?"
Send check to
**The Gulf Publishing Company**
P. O. Box 1307 Houston, Texas

# RECOGNIZED PETROLEUM GEOLOGISTS


**R. E. VANDRUFF**
Oil Geologist
20 Years' Experience. Discoverer of Cushing and 7 other pools.
Penn., Ohio, W. Va., Okla., Kan., Texas, California
4860 Oregon Street, San Diego, Calif.
Write for free circular on how oil originates and accumulates

Income Tax Service Oil Appraisals
**The Jas. I. Tucker Co.**
Consulting and Appraisal Engineers
Tradesmen's Bank Building
Oklahoma City, Okla.

**GEO. C. MATSON**
Petroleum Geologist and Engineer
Geological Surveys
Appraisals for Taxation or Financing
Phones Osage 2049-1833
408 Cosden Bldg. Tulsa, Okla.

Amil A. Anderson Frank B. Anderson
**ANDERSON & ANDERSON**
Mining Engineers & Petroleum Geologists
304 Bitting Building
Wichita, Kansas
Telephone: Market 2887

**EUGENE COSTE & CO.**
Petroleum Engineers and Geologists
DALLAS, TEXAS
Dallas County State Bank Building

**SAMUEL J. CAUDILL**
Geologist & Petroleum Engineer
Valuation—Depletion
For Financial or
Income Tax Purposes
1016 Atlas Life Bldg. Tulsa, Okla.

**ERICH F. KUEHNLE**
Petroleum Technologist Rodgers Building
Geological Surveys, Supervision of Field Operations, Chemical Petroleum Analyses, Engineering and Statistical Services
Houston, Texas, U. S. A.
Phone Preston 5567. P. O. Box 331

**ALEXANDER DEUSSEN**
CONSULTING GEOLOGIST
Reports—Appraisals—Management
Texas and Louisiana Oil Properties
504 Stewart Bldg. Houston, Texas

**DAVID DONOGHUE**
Geologist and Engineer
Appraisals and Geological Reports
West Building, Houston, Texas


will cause slight variations in estimates. To illustrate this point, the authors made an estimate of future recovery for California oil fields as of January 1, 1922, using a composite decline curve for all California oil fields, excepting the recently developed fields of the Los Angeles Basin, which are a departure from previous California experience. A program of drilling and abandonment conformable with past performance was used and production decline carried out to a minimum of 1000 barrels per well per year.

The result gives a future recovery from January 1, 1922, of 1,603,540,000 barrels, not including, as stated, certain new fields. This is 18,000,000 barrels or 1 per cent, less than the committee's estimate with Long Beach and Huntington Beach excluded.

A comparison of the various estimates of ultimate recovery, made since 1915, show a variation of 1 to 3 per cent for proved areas, not including the gusher fields of the Los Angeles Basin. These fields have upset all previous calculations and apparently justify the addition of 450,000,000 barrels to California's ultimate production from the present proved oil fields.

## Name Men to Supervise Work on Indian Lands

**Washington, D. C., Oct. 15.**—Supervision of oil and gas producing operations on Indian lands under the Shawnee, Ponca and Pawnee agencies in Oklahoma has been assigned by the Department of the Interior to Raymond M. Carr, assistant petroleum engineer of the Bureau of Mines. Supervision of similar operations on Indian lands within the Kiowa, Comanche and Apache reservations has been assigned to H. C. George, petroleum engineer of the Bureau of Mines. This assignment, together with his detail to certain areas under the Five Civilized Tribes, places Mr. George in charge of oil and gas operations on all Indians lands in southern Oklahoma.

## Bureau Has New Table For Figuring Volume

**Washington, D. C., Oct. 15.**—The Bureau of Standards has just issued a circular consisting of tables to be used in calculating the volume which an oil will occupy at 60 degrees Fahrenheit temperature, when the degrees A. P. I. at 60 degrees and the volume at any given temperature are known. By use of this table, for instance, if the A. P. I. gravity of an oil at 60 degrees F. is 22, and its volume has been found to be one gallon at 105 degrees F., its volume at 60 degrees will be found to be 0.9822 gallons.

The values in the body of the table are in the form of "multipliers," that is, the volume of the oil at the indicated temperature and degrees A. P. I. multiplied by the corresponding factor in the table equals the volume at 60 degrees F. The tables can also be used to calculate the percentage change of volume to reduce to 60 degrees F. The percentage factor is 100 times the difference between the tabulated value and unity.

The results on which these tables are based were secured during an investigation conducted by the bureau on the density and thermal expansion of American petroleum and oils and published as Technologic Paper No. 77. The same data were used in computing the tables published in Circular No. 77, "United States Standard Tables for Petroleum Oils." Both these publications may be obtained from the Superintendent of Documents, while those desiring copies of Letter Circular 101 should apply to the bureau direct.


Oil Appraisals Management Tax Service
**C. N. BLACK**
Petroleum Engineer
Member A. S. C. E.
405 Stewart Bldg. Preston 3122

**EDWIN B. HOPKINS**
CONSULTING GEOLOGIST
25 Broadway
NEW YORK

**VINSON, ELKINS & WOOD**
ATTORNEYS
Gulf Building, Houston, Texas
Special Attention to Oil Leases and Litigation

**PATENTS**
Patents Obtained and Trade Marks and Copyrights Registered
428-29-30 Bankers Mortgage Building
**HARDWAY & CATHEY**
Phone Preston 4790 Houston, Texas

**Maurice Hirsch & Allen Hannay**
ATTORNEYS AT LAW
601-2-3 Goggan Bldg
HOUSTON, TEXAS
Specializing in Oil Law and Land Law

**PATENTS**
Patents Obtained, Trade Marks, Patent Causes
**JESSE R. STONE**
Formerly Assistant Examiner United States Patent Office
Andrews, Streetman, Logue and Mobley
12th Floor Union N. Bk., Houston, Texas

Frank A. Herald John M. Herald
**HERALD BROTHERS**
Geologists
Petroleum Engineers
303 Cosden Building Tulsa, Okla.

# ACREAGE AND PRODUCTION FOR SALE OR WANTED

**F. W. Freeborn Engineering Corporation**
Engineers, Appraisers, Constructors, Managers
For
Oil and Industrial Properties
MAYO BUILDING
TULSA, OKLAHOMA
Dallas, Texas
Slaughter Building
New York City
52 Wall Street
Boston, Mass.
50 Congress Street

**SOUTHERN ENGINEERING SUPPLY CO., Inc.,**
Blue Printing Photostats
Engineering and Drafting Supplies
We specialize in map printing
90½ Main St., Houston, Texas
Phone Preston 6780

**TEXAS OIL MAPS**
County and District
Catalog on Application
HEYDRICK MAPPING COMPANY,
Wichita Falls, Texas

**It May Mean a Life?**

It may seem a small thing, that unfailing, patented spring catch of the
**NEILSON Safety HOOK and ELEVATOR**
but it may mean the difference between life and death, between safety and injury. More than one workman has been killed by unsafe hooks and elevators. That is probably why careful buyers are specifying the Neilson in such numbers that we are finding it hard to keep up with the demand.
You will find a trial distinctly worth while.
Retail Price, Elevators . .$36.00
Retail Price, Hooks . ... 25.00
At your supply store.
**B. & C. Machine & Foundry Company**
Tulsa, Okla.

## To Find Out Difference Between Mud and Cement

**Washington, D. C., Oct. 7.**—A combined laboratory and field investigation of the use of mud fluid and cement in oil and gas drilling operations is being made by the Department of the Interior at the Petroleum Experiment Station of the Bureau of Mines at Bartlesville, Oklahoma. The work is being done by M. J. Kirwan, assisted by M. B. Cooke and C. I. Huss. This work has a number of purposes. It is desired to determine the rate and amount of penetration of mud fluid into formations of various textures and porosities under different pressures. The physical and chemical characteristics of mud fluids are also being studied together with their relation to the use of mud fluids in wells. The effect of adding so-called "peptizers" (chemicals) to prevent or accelerate the settling of mud is being studied as well as methods of treating mud to finely divide the clay particles so that the mud will enter fine grain sands. A stndy has been made of "loading" mud fluids to give higher specific gravities and thus make them more effective in holding down high pressures in wells.

Numerous experiments have been made on oil well cements. The effect of high ratios of water on the tensile strength of cement was studied. This included an investigation of the time of initial and final set. The effect of pressure on the time of initial and final set and observed. Several brands of cement were studied with reference to their use in oil wells.

In addition to the laboratory work field observations have been made, and conditions under which mud and cement were handled and placed in the Tonkawa oil field were studied. This investigation should be of value, as it will furnish fundamental data of importance in oil well mudding and cementing. The results of the investigation will later appear in a bulletin by Mr. Kirwan.

## To Test Oil Prospects On Newfoundland Coast

**Washington, D. C., Oct. 15.**—Determined efforts will be made next spring to develop the oil fields lying along the west coast of Newfoundland, according to information just received by the Petroleum Division of the Department of Commerce. These fields comprise two distinct areas, one at Parsons Pond, with an adjacent smaller field east of Parsons Pond and south of White Bay, covering a total of some 200,000 acres, about 75,000 of which have been taken up by development companies. The second area is situated north of Hawk Bay and comprises about 25,000 acres.

An oil expert with experience in American fields has left Halifax for Newfoundland in the interests of a syndicate headed by George E. Bearns and C. A. Furu, of London, and D. H. Eaton of Toronto. It is planned to survey the two areas referred to as well as some property owned by Sir Mortimer Davis, head of the Imperial Tobacco Company, Ltd., of London, which covers some 6500 acres south of the Hawk Bay field and 12,800 acres south of White Bay.

Will sell 10 or 15 acres of my 50-acre lease 300 feet of drilling well or 1-16 over-riding royalty in 25 acres including drilling well. Well located, within about 2500 feet of large production on two sides. Prices about 1-3 less than adjoining prices.
SUMMERFIELD G. ROBERTS,
709 Insurance Building
Dallas, Texas

Announcing New Sectionized Texas County Maps, Scale 1 inch-1 mile
White Prints Cloth $5.00, paper $3.00
Humble, Gulf, Texas, Mid-Kansas, Prairie, Pure, Sinclair and Cosden Companies use our maps.
Every County in Texas
Orders in mail one hour after receipt of wire
TEXAS PETROLEUM BUREAU,
P. O. Drawer 586 Ft. Worth, Texas

The FT. WORTH LABORATORIES

Field Gas Testing. Analysis of oil field brines, gas minerals and oil.
Sell Thermometers, Hydrometers and Laboratory Glassware
F. B. Porter, B. S., Ch. E., Pres.
R. H. Fash, B. S., Vice President.
828½ Monroe St., Ft. Worth, Texas

**BAKER CASING SHOE CO.**
Box 264 -C Huntington Park Sta.
LOS ANGELES, CALIF., and
Box 239 -C COALINGA, CALIF.
MANUFACTURERS AND DEALERS
**Oil Well Specialties for Advanced Methods**
Practical and Dependable

BAKER
Anchor Wall Packers
Baker Casing Shoes
Bridge Builders
Cement Retainers
Cement Plugs
Clean-Out Bailers
Dump Bailers
Die Nipples | Water
Die Collars | Tight
Gas Traps
Hinged Spiders
Heaving Plugs
Pitman Ends
Plain Casing Shoes
Regular Hook Wall Packers
Release Hook Wall Packers
Rotary Bits Baker Type
Rotary Hole Guides
Rotary Shoes
Rotary Tool Joints
Rotary Wall Hooks
Split Shoe Guides
All Supply Houses or Direct

# What Does It Cost~

## To Drop A String of Tubing ?

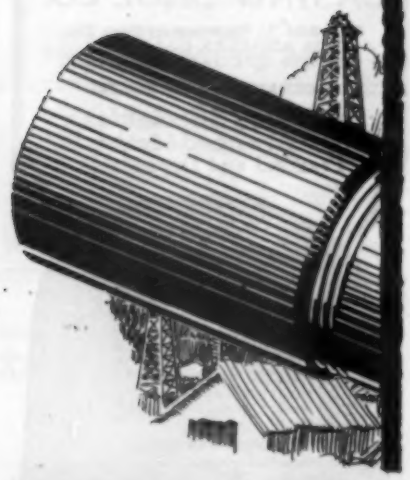


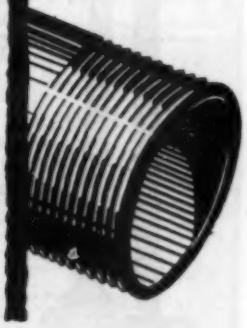
**Figure these items:**

1~Cost of assembling fishing tools.
2~Cost of labor pulling tubing and fishing for dropped string in hole.
3~Cost of damage to pipe, necessitating replacement and threading.
4~Loss of production.
5~Miscellaneous expenses.

*When a string of tubing parts what does it cost you ?*

**READING IRON COMPANY**
READING, PENNA.

Oil Well Supply Co., Distributors



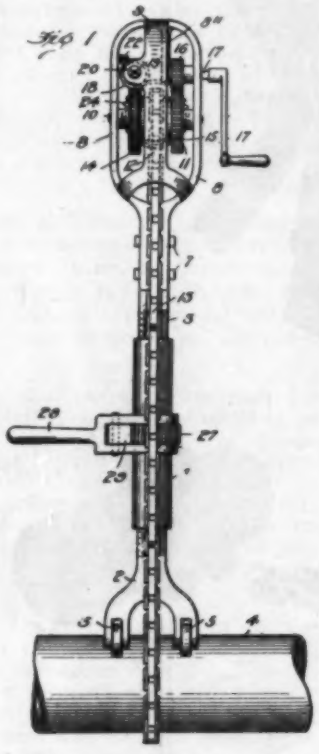
# READING
## GUARANTEED GENUINE
# WROUGHT IRON PIPE

# NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS

## Pipe Screwing Device Cuts Down Line Cost

A pipe screwing device which will screw or unscrew any size pipe from three inches up in as short a time as it could be done by a number of men with tongs, and which is also convertible into a casing tool for connecting or disconnecting casing, has recently been invented by Elmer Davis, Okmulgee, Oklahoma.

The gears are assembled so that it furnishes three speeds, the high speed



when the pipe has started rolling, the intermediate with a ratio of 8 to 1 and the low speed, whose ratio is 20 to 1.

To operate, the device is placed on the pipe and the chain is passed around it as shown in illustration. The chain is then tightened by operating ratchet lever 28 in the illustration, which turns No. 1, and this being threaded to rignt and left, acts very quickly and applies the proper amount of tension to the chain. Handle 17 in the illustration, which governs the speed of the device, is then turned and the pipe is started rolling. A cutter wheel will be connected to the lower portion of No. 2 that will cut any size pipe quickly and effectively. The screwing device and the cutter will be a complete tool. It is claimed this device will eliminate 60 per cent of the labor now being required on pipe line work.

## Drillers Seeking Work In Foreign Districts

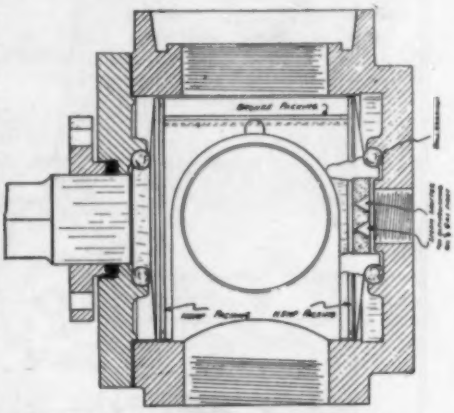
**Fort Worth, Texas, Oct. 15.**—Attracted by the adventure that duty in foreign oil fields offer and because of the slump in work throughout the Mid-Continent oil fields, scores of experienced cable tool drillers made applications for jobs with the National Supply Company, according to Harry O. Powell, district sales manager, when this company was called upon to furnish 50 drillers for the Anglo-Persian Oil Co., Ltd., of London, and the Burmah Oil Co., Ltd., of Glasgow, Scotland, for duty in Persia and India. The quota was filled with capable men on short notice by the various district offices of the National Supply Company, and the men will embark from New York before the first of November.

Twenty-five of the drillers are to be sent to the Persian empire by the Anglo-Persian Oil Co., Ltd., for duty in the Maidan-I-Naftun area, while the remainder will work for the Burmah Oil Co., Ltd., with Rangoon, India, as their destination. These men are taken on two-year contracts, and those going to Persia are not allowed to take their wives. Men with wives and children were accepted by the Indian company, but were not encouraged to take their families.

Among those leaving for duty in Persia are the following: George S. Black, Tulsa; W. J. Lobaugh, Tulsa; E. H. Hicks, Smackover; Harry Teters, Graham; T. B. and E. H. Spinney, Fort Worth; O. W. Rankin, Ranger; I. H. Flowers, Fort Worth, and J. J. Suman, Strawn. Included in the quota for India are: R. W. Boyle, wife and child, Eastland; T. N. Holmes and wife, Eastland; Harry Bartlett, Fort Worth; E. H. Gould, Eastland; P. T. Wolfe and wife, Graham; G. H. Livingston, Eastland, and C. C. Rupert, wife and two children, Eastland.

## Bureau Sends Man to California for Data

**Washington, D. C., Oct. 15.**—C. E. Steidel, attached to the Washington office of the Bureau of Mines, Department of the Interior, left for San Francisco September 8 for the purpose of taking over the compilation of the statistical reports as to the production of gasoline, kerosene, lubricating oils and gas and fuel oils in California, which are published monthly by the bureau. The California report is issued separately from the general report, in order that the figures may be made available more promptly to the California operators. E. C. Lane, assistant chemist, who has theretofore compiled the California statistics, will remain with the Bureau of Mines at San Francisco, but will devote his entire attention to research in problems in the chemistry of petroleum.

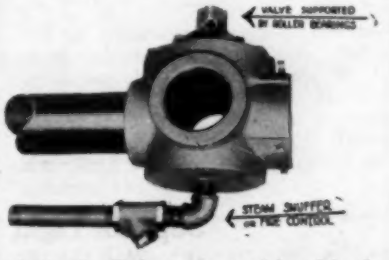


Interior of Palmer Control Head, showing steam snuffer and ball bearing improvements.

## New Control Head for Extinguishing Fires

A new and improved control head with a built in "steam snuffer" for extinguishing oil and gas fires has been perfected by B. F. Palmer of Tulsa, and is being manufactured and distributed through his company, the Palmer Specialty Company, with offices at 115 Tuloma building, Tulsa, Oklahoma.

Aside from the built in steam snuffer, another improvement that has been




made in the Palmer control head is that the rotor valve is supported by heavy duty ball bearings, which, the manufacturers declare, eliminates all chance of freezing the valve under high pressure. The working principle of the steam snuffer is embodied in the passage of the steam at high pressure into the control head through the rotor valve. The snuffer rotates with the valve and steam spray is always in a position to afford protection to open ports.

The Palmer control head, as heretofore, is being manufactured with two outlets and outlet control, and is also distributed through supply houses in the oil country. H. J. Zinn of Tulsa is secretary and J. W. Salles is sales manager.

**The OIL WEEKLY will print on this page data on new oilfield equipment, improvements on old equipment, news of new catalogs, bulletins, etc. This department is handled exclusively by the editorial department and has no connection with the advertising department. Data will be carried on anything which the editorial department thinks of interest to our readers, regardless of whether or not the manufacturer is an advertiser in The OIL WEEKLY.—Publisher.**

STEEL SUPERIOR DERRICK

Superior Light Pumping Derricks have a most unique joint, in which the girt is connected to the leg by means of two ¾-inch stud bolts. These stud bolts are permanently set in the sleeve connections and extend through the wall of the reinforcing plug which, in addition to strengthening the joint, furnishes an accurate seat and inside reinforcement for the end of each tubular leg section. Note also the 14-foot opening at the front of the derrick to facilitate the handling of rods.

SUPERIOR TUBE COMPANY

STEEL DERRICKS CASING TUBING LINE PIPE

KANSAS CITY, MO.

PITTSBURGH TULSA DALLAS CASPER ST. LOUIS

# PERSONAL MENTION-MEN YOU KNOW

T. B. Hoffer of Fort Worth, vice president of the Producers & Refiners Corporation of Denver, departed Saturday for Santa Fe, New Mexico, to attend the government auction sale of leases on Indian land in New Mexico, to be held October 15.

C. E. Hane, an active vice president, and E. W. McCrary of the geological department of the Tidal Oil Company, have returned to headquarters at Tulsa after inspecting the company's producing properties in the Corsicana-Powell field in East Central Texas. Three new wells, including a 16,000-barrel gusher, were brought in by the Tidal interests during their stay in the Corsicana-Powell field.

Mike McNamara of the production department of the Mutual Oil Company with headquarters at Fort Worth, is in Oklahoma this week looking over several wildcat tests being drilled by the company.

W. M. Lourcey, lease man for the Gulf Production Company in the North and Central West Texas district, returned to headquarters in Fort Worth last week from an extended vacation spent at his former home on the Florida Coast. Bill brought back a bunch of pictures to support his fish stories.

A. L. Derby, president of the Derby Oil and Refining Company, has returned to Wichita, Kansas, after a visit to Tulsa, where he appeared on the program of the Mid-Continent Oil and Gas Association meeting there last week.

E. B. Marlow, vice president of the Sinclair Crude Oil Purchasing Company, headquarters at Tulsa, departed last week for home after spending several days in Los Angeles and other California points. He was accompanied to California by W. E. White, who will remain at Los Angeles for several weeks to keep his company posted on California developments.

P. A. Harrison, manager of the joint offices of the Fensland Oil Company and Producers & Refiners Corporation at Fort Worth, visited the properties of the latter concern in the Wewoka, Oklahoma, field last week.

**W. W. ORCUTT,**

**Vice-President of the Union Oil Company of California, with headquarters at Los Angeles.**

J. H. Jenkins, manager of the Texas properties of the Tidal Oil Company with headquarters at Fort Worth, attended a conference of Tidal officials in Tulsa late last week. Jenkins is building up a record for the Tidal Oil Company on production in the Corsicana-Powell field, as the properties being developed by the company have the second largest production in the field, and a goal of 60,000 barrels daily has been set and will probably be made before the close of October.

J. P. Ratigan of Los Angeles, Calif., was among the Tulsa exposition visitors, being in general charge of his exhibit in the Frick-Reid Supply Company booth.

J. A. Woods and A. A. Buschow, president and secretary-treasurer, respectively, of the Bridgeport Machine Company, were away from their offices in Wichita, Kansas, a part of last week on a visit to Tulsa to attend the Oil and Gas Show there.

N. H. Sooy, vice president of the Kansas City Hay Press and Tractor Company, has returned to his company's headquarters in Kansas City after a couple of days visit to the Tulsa exposition.

The Prairie Oil and Gas Company official family from Independence, Kansas, including W. S. Fitzpatrick, Nelson K. Moody, Dana H. Kelsey, C. H. Kountz and E. T. Patterson, were in Tulsa last week for a couple of days attending the exposition.

## Water Trouble at Cushing Due to Bad Drilling Jobs

**Washington, D. C., Oct. 16.**—The Cushing oil field in Oklahoma, which came into prominence in 1913 and which has been frequently referred to as the greatest light oil pool ever known, is now producing about 27,000 barrels per day. A preliminary investigation made by the Department of the Interior, through the Bartlesville, Okla. station of the Bureau of Mines, has demonstrated that serious inroads have been made by underground water, which, through the employment of faulty drilling methods and worn-out material, has gained access to a number of the producing wells. It is believed that if this water can be excluded, even partly, the life of the field can be lengthened and the ultimate production greatly increased.

In view of the importance of this light oil producing district and the possibilities of increasing its ultimate oil production, D. P. Wardwell, associate petroleum engineer of the Bureau of Mines, was assigned to make an extensive engineering study, which is to be followed by actual well repair work. C I. Huss, expert driller, assisted in the preliminary engineering investigation and collected information which would assist him later in repairing wells. John Van Dall, assistant petroleum engineer, was later assigned to assist Mr. Wardwell.

The engineering investigation has been practically completed, and it is expected that well repair work will begin shortly. A number of engineering cross sections have been made and maps depicting various features such as water conditions have been drawn. The Bureau of Mines engineers have been successful in obtaining practically all the well logs and many of the oil production records of properties being studied. The bureau has the assurance of several companies that they will cooperate in repair work. The Federal Government and the State of Oklahoma are sharing the expense of this investigation.

**Washington, D. C., Oct. 15.**—A large oil storage plant is to be constructed at Cardiff Docks, England, according to information received by the Petroleum Division of the Department of Commerce. The program provides for the construction of two 10,000 ton and two 5000 ton tanks on a site owned by the Great Western Railway, close to the entrance to the Queen Alexandra docks. It is proposed to continue the existing jetty near the tank farm further seaward, so as to enable several vessels to discharge or take in oil at the same time. It is also proposed later to establish at this point a large refinery for treating crude oil.

# The Cost of Valve Cups Is a Small Item—

## The *Choice* Is of Utmost Importance

Valve cup **performance**—not **price**—determines what you really pay for the valve cups you use.

Buy your cups as carefully as you build your rigs—choose them as you select your drill crew. Look for the Darcova label—the guarantee of long, efficient service, the mark of the first composition valve cup to enter the field.

Re-cupping means wasted labor, time and oil—profits turned to losses. Cups that may look **good enough** prove **good for nothing** when the strain comes.

Darcova performance is an old story to men throughout the oil fields. For fifteen years the old reliable orange label has saved them money and pipe trouble.

# DARCOVA VALVE CUP

## *The Original Composition Cup*

**Say you saw it in The Oil Weekly**

# Letters of a Coastal Bollweevil

Port of Spain, Trinidad.
September 5, 1923.

Mr. Paul Peebles, P. S. G.,
Houston, Texas.

Dear Sir: We are in need of your presence or your advice at once. We are planning an English-Venezuelan Combine, Ltd., to produce oil and furnish amusement in Trinidad and in East Venezuela. It is necessary to commence as soon as possible before the governor of Trinidad changes his mind in regard to foreign producing companies, and also before another revolution breaks out in Venezuela.

All concessions, laws, etc., are to be taken up with Fort Worth lawyers, as I am well acquainted in Fort Worth, and you need not go out of your specialty for minor details.

We propose to produce oil in Trinidad with the regular salt dome drills; but in East Venez., several miles to the west across the Gulf of Paria, is where we need special advice.

Near Pedernales, Venez., on the north wing of the Orinoco River delta is an enormous and unprofitable (so far) oil seep. Eminent geologists have made reconnoisance reports on the district for German capitalists more than 20 years ago. Most of these geologists stressed the importance of the carburetted sulphuretted hydrogen gas that bubbles out at Pedernales.

An English company is said to be now preparing to bore in this region with a diamond drill. You might be able to sell this company one of your flexible drills if you bring some along.

We intend to clean off the tropical underbrush at Pedernales with West Texas goats. We are going to cover this circular area, of one mile radius, with a foot and a half in thickness of cement. Portland cement with a filler is to be used if we can't get a cheaper substitute. The circle is to be dome-shaped, with a two-degree slope to the mile. A 20-inch control head with a 20-inch flow line is to be placed at the top of the dome. Oil, with its own pressure, should flow into tankers which can be brought very close in the Gulf of Paria. This concrete dome should be a perfect concentrator of oil and gas, and more impervious than Sealite.

The promoters of this Combine, Ltd., plan on paying for the concrete to be used by renting the dome for Trinidad recreation. The English are noted for spreading, and they should be able to journey across the gulf, from Port of Spain, in boats and aeroplanes every Sunday for cricket and soccer football. The week-days are to be reserved for horse racing.

I could have sent this request to Dave Donoghue, but we believe you to be the man to advise us to proceed or stop with our plans.

Yours truly,
Ex Ft. Worther.

mr. ex. Ft. Worther
port of spain trinidad
deer mr. werther

all the ex ft worthers has been found presents or akounted for excepten yu ontil i got yore letter, an as yu say yu is in tutch with the lawyers in ft. worth i gess they noed where yu was all the time an wasn't tellin. i gess yu r in a safe plase alrite.

yore skeem about bildin a dume is alrite exscept yu shore did do the rite thing about ritin 2 me about it bfore yu spent enny munny on concrete, bkaus it wud not work that away. yu hav red mi mine on this ? parshall becaus i was just gittin reddy 2 start a projeck 2 bild the dumes rather than hav so mutch munny spent huntin them. i bleev it wud be more cheeper 2 bild them an bsides yu can hav yore dome clost 2 transportashun an pipe lines an save some more expents after the oil is diskoverd.

but bi all meens yu shud not use conkreat. oil is 2 b found bi salt domes an not cement domes, so yu shud ort 2 make the dume out of salt. i spent 2 bits at a drug stoar an a nckul at a growsry 2 git mi materels an i hav made up the folowin so lushun wich is the propr 1, bi al the testes i have maid, to use in makin a dume 2 fit the situwashun yu hav in yore letter—

50% bi wate, sodium klorid (NaCl) whitch is the common garden varyety of salt.

25% bi wate epsom salts.

25% bi wate pottassium nitrate (KNO-3) whitch is also noed as salt peter.

mix up all this an ad water 2 maik it lak conkret an spred over the ground.

it would be more better 2 hav a reel hill fer a fraim 2 put this stuph on, but in cases lik yu hav down their of corst yu will hav 2 bild the dume out of the salt. but yu can fergit about that 2 per sent graid on akount the 2% limatashun only applys 2 neer bier in the U S an frum what i have tride of it 2% aint ernuf.

now for a systum of bildin the dume after yu hav the rite mixture for the salt. It is 2 waze 2 do this. yu can do it with conkreat mixurs, but the best wa wud b 2 do the mixin of the stuf with a rotary rig. yu will nead the rig latur on, so jest rig up like yu wuz reddy 2 drill alreddy, only dig a hoal about 8 feat roun an 40 feat deep undur the derick an in plais of a bit put on sum paddles. then mix the salts with watur an pump it in2 the hoal. then rotate whitch will mix it up an then pump it out agin on the side of the hill. wen the watur vaprates an the salt drise yu will hav a expozd dume an a lokashun alreddy maid on top of it.

I do not no how mutch it will cost, but mabe raisin the gotes while they are cleenin off the groun will make enuff prophets 2 help pay expentses. mabe the salt will not be verry good for the games unlessen yu put sum sand on top of it an then put on a thin laier of conkreat on top of that. then yu can hav it to play on, an besides it will pretect yore dome from being lickt up by the cows

i wud advise yu 2 git leeses on all the land yu kan around whair yu bild the dome, as i wud not garrantea that a mile big doam wud collect more than enuff oil fer the 1 well in the middle, so yu wud not want no offsets.

but the mixshure i have inventd shud inshure a good an steddy produckshun, bekaus it is scientifick. the common salt attracks oil an the salt peter will maik it swet. an yu know what the epsom salts will do. when she starts flowin all yu hav 2 do is hook er up 2 a tanker down in the bay an change tankers as soon as they get full.

i will not offer mi flexitibul drill 2 the english co on akount it is desined 2 revolushunize oil an yu sed yoreself that they dont need no revolushun down their rite now.

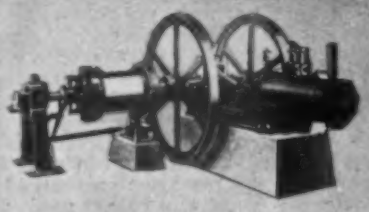
i am trustin yu fer mi perfeshunal fea whitch is 5% of the construkshun cost of the dume, whitch is the standard charge for arkitecks bildin salt domes, an i dont want none of it in stock.

hopin you are the saim
paul peebles, P. S. G. & O. E. T. and salt dome arkiteck

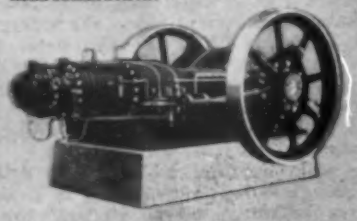
Second Class Men and Poor Equipment
are the most expensive in the long run. The Roark Standing Valve, with its indestructible, extra heavy steel body and renewable seat frame, is cheapest in the end.
Stocked by All Petroleum Supply Co. Stores
Texas Oil Pump Co
Waco, Texas

# BEST BESSEMER

BESSEMER OIL FIELD ENGINES – COMPRESSORS VACUUM PUMPS – ROLLER PUMPING POWERS



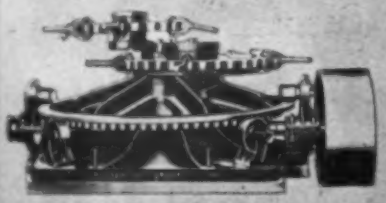
**The Bessemer Oil Field Engine**
Famous in oil territory the world over. The original two cycle engine with cross-head construction.



**Bessemer Type IV Oil Engine**
A dependable engine of trouble-free performance, which operates on inexpensive fuel oil.

**The Bessemer Type Ten Compressor**
This is the newest Bessemer unit, combining engine and compressor in one unit and incorporating numerous refinements.

**The Bessemer Type VIII B Direct Driven Compressor**
Standard equipment in the Gasoline-from-Gas Industry. The most efficient and economical means of gas or air compression.



**Bessemer Roller Pumping Power**
A compact pumping unit which keeps rods close to ground. Master wheel kept level by six rollers.

## A synonym for the Best for a Quarter Century

From the first gas engine in 1898 to the Type Ten compressor in 1923, Bessemer leadership in the Oil Field has been an undisputed fact.

Machinery to meet every oil field need has been developed and perfected in the Bessemer plant and built to maintain the Bessemer ideal—*that every product shall be the Best in its line.*

Today the Bessemer trademark on oil field equipment, compressors, gas engines, oil engines, pumps and pumping powers, is your guarantee of unexcelled design, sturdy construction and world-wide service.

Complete descriptive catalog gladly sent on request.

THE BESSEMER GAS ENGINE COMPANY
York Steet : Grove City, Pa.

# SQUEAKS from the BULL WHEEL

A man who had run his car through a fence and onto a porch of a cottage, told the police that he lost control of his machine. We should imagine he had, but he didn't have anything on Tom Reilly of whom the Tampico Tribune prints a paragraph which despite its brevity, is replete with humor, pathos and fact. * * * "The Globe Petroleum Company, says the paragraph, "is building a new wash house at Quebrache. Tom Reilly had an inspiration that he could drive a Ford. After receiving a few simple instructions he climbed in. After one of the men had cranked it he started off down a long hill. Some one hollered that the car had no brakes, so Tom swerved around and regained level ground. He was driving in low but his foot slipped off and not knowing how to drive in high or to stop the car he became confused and piloted the car through the Chinaman's wash house, demolishing it * * * * Wonder why, with all the uncounted millions of Chinamen there are, including the bandits, that we always think of them and laundry in the same breath. * * * * Down in Galveston the other day a speaker told the Rotary club about steam laundries and said the laundry is an American institution. Sounds like a bid for putting the sheets in the laundry. * * * A glass maker told his fellow laborers at the federation meeting that there are more whiskey glasses being made now than ever before—and our personal and observatory average is that 99 99-100 per cent of the whiskey an alleged, is consumed straight from the bottle. * * * A very new meller drama, or perhaps it is a "funny" comedy, points a new one in oil geology that will put our frien Paul Peebles off (not on) the rocks. The hero flips a burning match into the old moss lined well an it explodes—then the heroine's land out-ranks Mexia's Golden Lane faster than the painters can put derricks on the curtain.

---

An old negro preacher was waxing warm about the crime of stealing watermelons. As he reached the high point of his subject, a darky looked up and snapped his fingers.

"How come, brudder," asked the preacher, "dat when I talks about watermelon stealing yo' all snaps yo' fingers?"

"Nothin' 'tall, pahson, nothin' 'tall. I jes' happen to think whar I left ma knife."—Marion Line.

---

Maude Muller on a summer's day,
Watched the hired man rake the hay;
She laughed and giggled in her glee
When up his pants leg crawled a bee.
Later the farm hand laughed, in turn,
When a big grasshopper crawled up her'n.
—Hurry Back News.

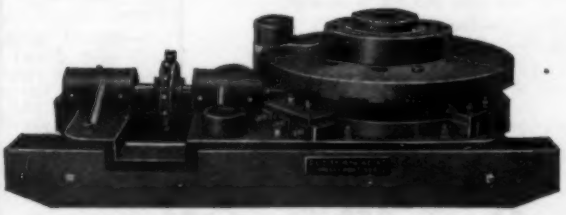
---

"My boy," said the school inspector, "what's the plural of 'mouse'?"

"Mice," said Jimmie.

"Right," said the inspector. "And now, what is the plural of baby?"

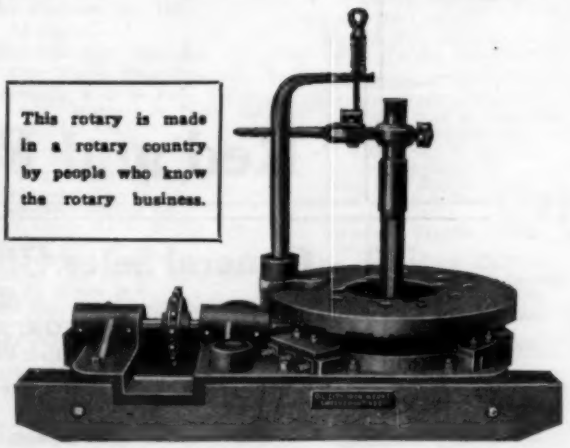
"Twins!" said Jimmie.—Good Hardware.

This view shows slip ring and Grief Joint Driver in position when drilling.

## *The Logical Rotary*

This rotary is made in a rotary country by people who know the rotary business.



This view shows the Slip Ring removed with slips transferred to the Stationary Bottom Slip Ring, which allows the table to turn, driving the tongs, while the pipe is held stationary.

Our all steel 22" Break-out Rotary is making new friends daily. This is a simple make up and break out rotary, set casing without extra man, in one half less time than old way. We have them in the Tonkawa field, the Powell field, Louisiana and Arkansas fields. "Ask the man who has used them."

Write us for particulars.

*"We do business with the best people on earth"*

**OIL CITY IRON WORKS**

Shreveport Louisiana

# Gulf Refining Company

OKLAHOMA
TEXAS
LOUISIANA

*Refiners of* PETROLEUM

GASOLINE
REFINED OIL
NAPHTHA
GAS OILS
PARAFFINE WAX
ASPHALT
FUEL OIL
LUBRICATING OILS
CYLINDER
ENGINE
CORDAGE

## Red and Pale Paraffine Oils

**General Sales Offices: PITTSBURGH, PA.**

District Sales Offices:
NEW YORK, HOUSTON, ATLANTA, BOSTON, NEW ORLEANS
PHILADELPHIA

Ocean Terminals

Beverly, Mass.
Gibson's Point, Pa.
Port Tampa, Fla.
Port Arthur, Texas

Bayonne, N. J.
Savannah, Ga.
Gretna, La.
Magazine Point (Mobile), Ala.

Providence, R. I.
Jacksonville, Fla.
Galveston, Texas

Say you saw it in The Oil Weekly

# GUIDE FOR PURCHASERS

### Air Compressors—
Southern Engine & Pump Co.

### Air Lift Pumping Equipment—
Gardner Governor Co.
Sullivan Machinery Co.

### Attorneys—
Hirsch & Hannay
Vinson, Elkins & Wood

### Balls and Seats—
The Chas. N. Hough Mfg. Co.

### Band Wheels—
Lee C. Moore & Co., Inc.

### Banks—
Exchange Banks of Tulsa
First National Bank of Tulsa

### Belting—
Bridgeport Machinery Co.
Continental Supply Co.
D. F. Connolly Agency
Frick-Reid Supply Co.
Norris Bros.
Oil Well Supply Co.
Republic Supply Company

### Boilers—
Bridgeport Machine Co.
The Brownell Co.
D. F. Connolly Agency
Continental Supply Co.
Frick-Reid Supply Co.
International Supply Co.
The National Supply Cos.
Oil Well Supply Co.
Republic Supply Company
Titusville Iron Works Co.
United Iron Works, Inc.
See Oil Field Supplies and Tanks

### Burners—
Gaso Pump & Burner Mfg. Co.
Norris Bros.

### Bull Wheels—
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.
Tulsa Rig Reel & Mfg. Co.

### Calf Wheels—
Lee C. Moore & Co., Inc.

### Casing—
David L. Schofield
Republic Supply Company

### Casing Shoes—
Baker Casing Shoe Co.
Bridgeport Machine Co.
Continental Supply Co.
Gulf Coast Machine & Supply Co.
The National Supply Cos.
Pelican Well Tool & Supply Co.
Republic Supply Company

### Cement Hardener—
The Sullivan Co.

### Compressors—
Butler Mfg. Co.
Gardner Governor Co.
F. W. Heitmann Co.
Hope Engineering Co.
Sullivan Machinery Co.
United Iron Works, Inc.

### Cordage—
D. F. Connolly Agency
Continental Supply Co.
The National Supply Cos.
Republic Supply Company

### Crown Blocks—
American Well & Pros. Co.
Boykin Machinery & Sup. Co.
Gulf Coast Machine & Supply Co.
International Derrick & Equipment Co.
Lufkin Foundry & Machine Co.
Oil City Iron Works, Inc.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.

### Couplings—
Harrisburg Pipe & Pipe Bending Co.

### Dehydrating Processes—
W. S. Barnickel & Co.
Petroleum Rectifying Co.

### Derricks and Rigs—
International Derrick & Equipment Co.
Lee C. Moore & Co.
Parkersburg Rig & Reel Co.
Peden Iron & Steel Co.
Tulsa Rig Reel & Mfg. Co.

### Diamond Core Drills—
Sullivan Machinery Co.

### Disc Bits
Rotary Disc Bit Co.

### Ditchers—
Buckeye Traction Ditcher Co.

### Draw Works—
American Well & Pros. Co.
Lufkin Foundry & Machine Co.

### Drilling Cables—
Bridgeport Machine Co.
D. F. Connolly Agency
Continental Supply Co.
Frick-Ried Supply Co.
F. W. Heitmann Co.
The National Supply Cos.
Peden Iron & Steel Co.
Republic Supply Company
Williamsport Wire Rope Distributing Co.

### Drilling Machines—
Bridgeport Machine Co.
Keystone Driller Co.
Oil City Iron Works, Inc.
Parkersburg Rig & Reel Co.

### Drill Pipe—
Continental Supply Co.
Republic Supply Company
Reading Iron Co.
Steandard Seamless Tube Co.

### Drilling Equipment—
American Well & Pros. Co.
Bridgeport Machine Co.
Continental Supply Co.
Oil City Iron Works
Republic Supply Company

### Drive Pipe—
Republic Supply Company
Reading Iron Co.

### Electrical Equipment—
Southwest Gen. Elec. Co.
Westinghouse Elec. & Mfg. Co.

### Elevators—
B. & C. Machine & Fndy. Co.
Bridgeport Machine Co.
Dunn Mfg. Co.
Gulf Coast Machine & Supply Co.
Norris Bros.
Wilson & Willard Mfg. Co.

### Engines, Diesel—
Western Machinery Co.

### Engines, Gas—
The Braden Co.
Western Machinery Co.

### Engines, Oil—
Continental Supply Co.
Western Machinery Co.

### Engines, Pumping—
Ajax Iron Works
American Well & Pros. Co.
Bessemer Gas Engine Co.
Bridgeport Machine Co.
The Brownell Co.
De La Vergne Machine Co.
Franklin Valveless Engine Co.
Hope Engineering Co.
Lucey Mfg. Corp.
Lufkin Foundry & Machine Co.
The National Supply Cos.
National Transit Pump & Machine Co.
Oil Well Supply Co.
Peden Iron & Steel Co.
Republic Supply Company
Southern Engine & Pump Co.
Titusville Iron Works

### Engineers—
Samuel J. Caudill
F. W. Freeborn Eng. Co.
Geo. C. Matson
Lee C. Moore & Co.

### Fire Protection—
Foamite-Childs Corporation

### Fish Tail Bits—
American Well & Pros. Co.
Federal Supply Co.
Gulf Coast Machine & Sup. Co.
Oil City Iron Works, Inc.
Pelican Well Tool & Sup. Co.

### Floor Circle Brace—
Dunn Mfg. Co.

### Fuel Oil—
Gulf Ref. Co.
Sinclair Ref Co.

### Gas Traps—
Trumble Gas Trap Co.

### Gasoline Extraction Compressors—
Bessemer Gas Engine Co.
Gardner Governor Co.
Sullivan Machinery Co.

### Gasoline and Oil Storage Tanks—
Butler Mfg. Co.
Kansas City Struct. Steel Co.
Parkersburg Rig & Reel Co.

### Gauges—
The Foxboro Co., Inc.

### Geologists—
Samuel J. Caudill
Alexander Deussen
Edwin B. Hopkins
Geo. C. Matson
Herald Bros.

### Gauge Boards—
The Foxboro Co., Inc.

### Genuine Wrought Iron Casing—
Reading Iron Co.

### Grips and Clamps—
Norris Bros.

### Heat Exchangers—
Brown Welding & Machine Co.

### Hose—
D. F. Connolly Agency

### Houses—
Crain Ready Cut House Co.

### Laboratory Equipment—
Fort Worth Laboratories

### Lease Equipment—
The Braden Co.

### Lighting Systems—
Bridgeport Machine Co.
Westinghouse Elec. & Mfg. Co.

### Line Pipe—
Continental Supply Co.
Republic Supply Company
Reading Iron Co.

### Manufacturers—
Robinson Packer Co.

### Meters—
The Foxboro Co., Inc.

### Motors—
Southwest Gen. Elec. Co.

### Oil Field Supplies—
American Well & Pros. Co.
B. & C. Machine & Fndy. Co.
The Braden Co.
Bridgeport Machine Co.
Butler Mfg. Co.
D. F. Connolly Agency
Continental Supply Co.
Frick-Reid Supply Co.
Gulf Coast Mach. & Sup. Co.
Gardner Govenor Co.
International Supply Co.
Kansas City Struct. Steel Co.
Lee C. Moore & Co.
The National Supply Cos.
Norris Bros.
Oil City Iron Works, Inc.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Peden Iron & Steel Co.
Pelican Well Tool & Sup. Co.
Republic Supply Company
Robinson Packer Co
H. M. Spence
Tulsa Rig Reel & Mfg. Co.
United Iron Works, Inc.

### Oilwell Casing—
Republic Supply Company
Texas Pipe & Supply Co.

### Packers—
The Guiberson Corp.
Layne & Bowler
Robinson Packer Co.
Pelican Well Tool & Sup. Co.

### Packing—
D. F. Connolly Agency
The National Supply Cos.
Peden Iron & Steel Co.
Pelican Well Tool & Supply Co.
Republic Supply Company

### Paints—
Peden Iron & Steel Co.

### Patents—
Hardway & Cathey
Jesse R. Stone

### Pipe Grips—
Norris Bros.

### Pipe—
Continental Supply Co.
Frick-Reid Supply Co
F. W. Heitmann Co.
Harrisburg Pipe & Pipe Bending Co.
International Supply Co.
The National Supply Cos.
Oil Well Supply Co.
Peden Iron & Steel Co.
Reading Iron Co.
Republic Supply Company
David L. Schofield
Standard Seamless Tube Co.
Williamsport Wire Rope Co.

### Pipe Screwing Machines—
Buckeye Traction Ditcher Co.

### Pipe Wrenches—
Continental Supply Co.
Dunn Mfg. Co.
The Guiberson Corp.
Republic Supply Company

### Portable Buildings—
Butler Mfg. Co.
International Derrick & Equipment Co.

### Portable Compressors—
Gardner Governor Co.
Sullivan Machinery Co.

### Portable Drilling Rigs—
Bridgeport Manchinery Co.
Lee C. Moore & Co.
Oil Well Service Co.
Parkersburg Rig & Reel Co.
The National Supply Cos.

### Pulleys—
International Derrick & Equipment Co.
Lee C. Moore & Co.

### Pulling Machines—
Cark Machine Co.
Myrick Machine Co.
Safety Pulling Machine Co.

### Pumps—
Axelson Machine Co.
American Well & Pros. Co.
Continental Supply Co.
D & B Pump & Sup. Co.
Gardner Governor Co.
Frick-Reid Supply Co.
Gaso Pump & Burner Mfg. Co.
Norris Bros.
National Transit Pump & Machine Co.
Oil Well Supply Co.
Pelican Well Tool & Supply Co.
Republic Supply Company
Southern Engine & Pump Co.
Texas Oil Pump Co.
United Iron Works, Inc.

### Pumping Powers—
The Braden Co.
H. M. Spence

### Refined Products—
Gulf Refining Company
Humble Oil & Refining Co.
Sinclair Consolidated Co.
Sunshine State Oil & Ref. Co.
The Texas Company
Union Petroleum Co.

### Reamers—
Jones Oil Well Reamer Co.

### Recorders—
Fort Worth Laboratories
The Foxboro Co., Inc.

### Refinery Equipment—
Butler Mfg. Co.
Continental Supply Co.
Frick-Reid Supply Co.
Gardner Governor Co.

# Books On Petroleum

**DAY'S HANDBOOK OF THE PETROLEUM INDUSTRY,** By David T. Day, Ph. D., Editor-in-Chief.

A comprehensive handbook of the entire petroleum industry in 22 sections, each prepared by an expert on his subject.
Price .....$15.00

**PETROLEUM PRODUCTION METHODS,** By John R. Suman.

Now in its second edition, this book is regarded as the best work on drilling and the handling of production that has ever been published. Field men, office men, executives and students of the oil business should by all means have it. It contains not only the practical discussion of problems that field men and executives are called upon to solve, but embraces valuable tables that increase its value as a reference book. 550 pages, illustrated.
Postpaid ..... $6.00

**OIL LAND DEVELOPMENT AND VALUATION,** By R. P. McLaughlin, Petroleum Engineer and Geologist, formerly State Oil and Gas Supervisor of California.

The best method of oil land development as acquired in ten years of investigation.
Price ..... $3.00

**THE BUSINESS OF OIL PRODUCTION,** By Johnson, Huntley & Somers (all of the University of Pittsburgh).

This book describes the principles of company organization as regards scope, personnel, and methods. It was written to meet the urgent, immediate need on the part of many participating in the oil industry, especially the executives of oil companies, for a book on the business of oil and gas production. 264 pages, 6x9, 30 figures.
Cloth .....$3.50 postpaid

**PRINCIPLES OF OIL AND GAS PRODUCTION,** By Johnson & Huntley.

Cloth. Methods of Accumulation—Occurrence of Oil and Gas—Location of Wells—Management and Valuation of Oil and Gas Properties.
Price ..... $4.50

**DEEP WELL DRILLING,** By Walter H. Jeffrey.

A practical treatise on drilling by the latest improved methods and a Hand Book of useful information for the well driller. Every field man should have this book. 530 pages, profusely illustrated.
Price ..... $5.00

**GEOLOGY OF PETROLEUM,** By William Harvey Emmons, Ph. D.

A discussion of the origin, occurrence, accumulation, and distribution of oil and gas. The book presents the salient facts relating to the geology of the world's principal oil fields. 610 pages, 6x9, 254 maps and illustrations.
Price ..... $6.00

*Send us your order NOW*

**THE GULF PUBLISHING CO.**

P. O. Box 1307, Houston, Texas

# GUIDE FOR PURCHASERS—Continued

**Refinery Equipment (Continued)—**
Kansas City Struct. Steel Co.
Republic Supply Company
Titusville Iron Works
United Iron Works, Inc.
Wyatt Metal & Boiler Works

**Rig Irons—**
Frick-Reid Supply Co.
International Supply Co.
Lee C. Moore & Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Republic Supply Company

**Rotary Rock Bits—**
Hughes Tool Co.

**Rotary Fish Tail Bits—**
Continental Supply Co.
Federal Supply Co.
Pelican Well Tool & Supply Co.
Republic Supply Company

**Rubber Fillers—**
National Rubber Filler Co.

**Sectional Steel Buildings—**
The Braden Co.

**Separators—**
Butler Mfg. Co.
Gardner Governor Co.
Trumble Gas Trap Co.

**Spark Plugs—**
Stitt Ignition Co.

**Strainers—**
Layne & Bowler Co.
Pelican Well Tool & Supply Co.

**Structural Steel—**
Butler Mfg. Co.
Kansas City Struct. Steel Co.
Pennsylvania Tank Car Co.
United Iron Works, Inc.

**Steel Derricks—**
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.

**Steel Crown Blocks—**
Gulf Coast Mach. & Supply Co.
Lee C. Moore & Co.
Parkersburg Rig & Reel Co.

**Steel Manufacturers—**
Colonial Steel Co.

**Steel Storage Tanks—**
Butler Mfg. Co.

**Sucker Rod Lines—**
D. F. Connolly Agency
Continental Supply Co.

**Sucker Rods—**
Axelson Machine Co.
D & B Pump & Sup. Co.
Dunn Mfg. Co.
Norris Bros.
S. M. Jones Co.
The National Supply Cos.
Oil Well Supply Co.
Republic Supply Company

**Sucker Rod Sockets—**
Brown Welding & Machine Co.

**Tank Cars—**
Pennsylvania Tank Car Co.

**Tanks—**
Butler Mfg. Co.
Black, Sivalls & Bryson
The Brownell Co.
Gantz Tank Co.
Kansas City Struct. Steel Co.
Maloney Tank Co.
Parkersburg Rig & Reel Co.
United Iron Works Co.
Wyatt Metal & Boiler Works

**Tret-O-Lite—**
W. S. Barnickel & Co.

**Thermometers—**
Fort Worth Laboratories
The Foxboro Co., Inc.

**Tongs—**
Bridgeport Machine Co.
Dunn Mfg. Co.
Guiberson Corp.
Norris Bros.
Pelican Well Tool & Supply Co.
Wilson & Willard Mfg. Co.

**Tool Joints—**
American Well & Pros. Co.
Boykin Machinery & Sup. Co.
Bridgeport Machine Co.
Continental Supply Co.
Federal Supply Co.

**Tool Joints—(Cont.)**
Hughes Tool Co.
Pelican Well Tool & Supply Co.
Republic Supply Company

**Tools (Fishing and Drilling)—**
Bridgeport Machine Co.
Brown Welding & Machine Co.
Federal Supply Co.
Frick-Reid Supply Co.
Hughes Tool Co.
International Supply Co.
Oil Well Supply Co.
Peden Iron & Steel Co.
Pelican Well Tool & Supply Co.
Republic Supply Company
Sullivan Machinery Co.

**Tractors—**
Holt Mfg. Co.

**Tractor Winch—**
Rock Island Plow Co.
Tulsa Rig Reel & Mfg. Co.

**Traveling Blocks—**
American Well & Pros. Co.
Boykin Machinery & Sup. Co.
Gulf Coast Machine & Supply Co.
Lufkin Foundry & Machine Co.
Oil City Iron Works, Inc.

**Tubing Catcher—**
Dunn Mfg. Co.
Guiberson Corp.

**Tubing Lines—**
D. F. Connolly Agency

**Tubing—**
Republic Supply Company
Reading Iron Co.
Standard Seamless Tube Co.

**Underreamers—**
American Well & Pros. Co.
Bridgeport Machine Co.
Wilson & Willard Mfg. Co.

**Valves—**
Darling Valve & Mfg. Co.
The Charles N. Hough Mfg. Co.
Texas Oil Pump Co.
Ludlow Valve Mfg. Co.
Pratt & Cady
Reading Steel Casting Co.
Reading Valve & Fittings Co.
Westcott Valve Mfg. Co.

**Vacuum Pumps—**
Gardner Governor Co.
Sullivan Machinery Co.

**Valves and Fittings—**
Continental Supply Co.
Darling Valve & Mfg. Co.
D & B Pump & Sup. Co.
Frick-Reid Supply Co.
F. W. Heitmann Co.
Ludlow Valve Mfg. Co.
Lufkin Foundry & Machine Co.
The National Supply Cos.
Norris Bros.
Peden Iron & Steel Co.
Pratt & Cady
Republic Supply Company
Reading Steel Casting Co.
Reading Valve & Fittings Co.
United Iron Works

**Walking Beams—**
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.

**Welding and Cutting Equipment—**
Imperial Brass Mfg. Co.

**Working Barrels—**
Axelson Machine Co.
Continental Supply Co.
D & B Pump & Sup. Co.
Republic Supply Company
The Charles N. Hough Mfg. Co.
Texas Oil Pump Co.
McGregor Working Barrel Co.

**Water Gauges—**
F. W. Heitmann Co.

**Wire Rope—**
Bridgeport Machine Co.
D. F. Connolly Agency
Continental Supply Co.
Houston Oil Field Material Co.
International Supply Co.
Republic Supply Company
The National Supply Cos.
Williamsport Wire Rope Distributing Co.

THE REPUTATION OF ANY PRODUCT IS IMPORTANT

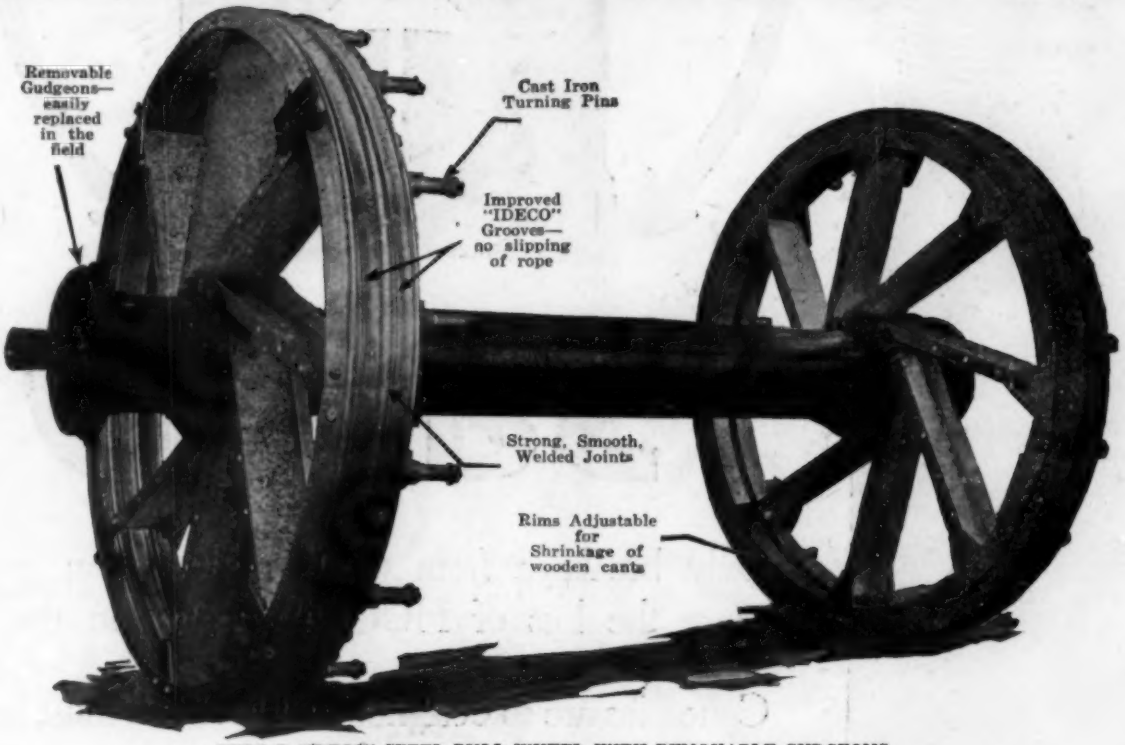
# International

## "IDECO"

## STEEL BULL WHEELS

(GALVANIZED)

## Are Giving Satisfaction to Many of the Largest Buyers of Equipment


Removable Gudgeons—easily replaced in the field
Cast Iron Turning Pins
Improved "IDECO" Grooves—no slipping of rope
Strong, Smooth, Welded Joints
Rims Adjustable for Shrinkage of wooden cants

TYPE B "IDECO" STEEL BULL WHEEL WITH REMOVABLE GUDGEONS

Superior strength and balance are built into "IDECO" bolted Steel Bull Wheels. Easily assembled or taken down. Spokes, rims and tug are galvanized in our own plant; hub and attachments are painted. Steel tug rim has double grooves, specially designed to allow rope to grip two sides—no power loss from slipping. Brake wheel rims adjustable for shrinkage of wooden cants.

"IDECO" Bull Wheels furnished with riveted gudgeons and with wooden tug, if desired. Angle spokes in place of channel spokes, if desired. Write for complete specifications.

## International Derrick & Equipment Company

GENERAL OFFICES AND PLANT

**COLUMBUS, OHIO**

The largest company devoted exclusively to the manufacture of Steel (Galvanized) Equipment for the Oil, Gas and Artesian Industries

BRANCH OFFICES AND WAREHOUSES

Tulsa Houston Shreveport Casper Los Angeles Bakersfield Oil City

Export Representation

**HUGHES SIMPLEX ROCK BIT**
*Dependable for all hard rock drilling*

# Safety

Only breakage from great overload can possibly cause the loss of HUGHES cones in the hole.

Cone pins are so designed that bit head must be split in half to permit removal of cone cutters.

***This Is Your Insurance Against a Fishing Job***

Manufactured by

## HUGHES TOOL CO.

Houston, Texas — Branch: Los Angeles, Cal.

Sold by Supply Stores Everywhere